

# Reigate Beekeepers



## BeeNews

May 2015



### Photo opportunity of the Month



#### Attractive Homes

A colourful site for the bees as they return home, and fun for all members of the family. This lady beekeeper in France gets her young daughters involved and encourages them to personalise their own hives with eye catching designs. Bees of course do not see colours as we do - red is black to them, and some studies say their favourites are purple, violet and blue, plus yellow and orange. But all are more attractive than weathered grey timber.

*Got an unusual, topical, or interesting bee related image that could be featured here?  
Please send it to the editors today!*



See next page for a very topical and timely announcement



### Dates for your Diary

Date	Event / Description	Venue / Contact
<b>May, Sat 4<sup>th</sup></b>	<b>Lower Kingswood Show</b> (12:30 - 16:30) Selling RBKA & Members Honey & promoting RBKA	<b>Lower Kingswood</b> Mike Hill
<b>May, Wednesdays 6, 13, 20, 27</b>	<b>Summer Practical Meeting</b> (18:30 - 20:00) Regular evening training sessions.	<b>Henfold Apiary</b> Andrew Buchanan
<b>May, Sat 9<sup>th</sup></b>	<b>Meon Valley Auction of Bees &amp; Equip.</b> (11:30 - 15:00) Another opportunity to buy or sell.	<b>Greatham, Hampshire</b> <a href="mailto:bruce.taylor@tiscali.co.uk">bruce.taylor@tiscali.co.uk</a>
<b>May, Sun 10<sup>th</sup></b>	<b>Cow Pie Show</b> (11:00 - 17:00) Selling RBKA & Members Honey & promoting RBKA	<b>Blindley Heath</b> <a href="#">tba</a>
<b>May, Mon 25<sup>th</sup></b>	<b>Surrey County Show</b> (10:00 - 17:00) SBKA Honey Competition, Show stands & displays	<b>Stoke Park Guildford</b> <a href="mailto:michaelfmain@hotmail.com">michaelfmain@hotmail.com</a>
<b>May, Sun 31<sup>st</sup></b>	<b>Pollen Identification for Beekeepers</b> (10:00 - 16:00) KSRC Present this session, by Bob Smith - £20 reg fee.	<b>Univ of Greenwich</b> <a href="http://www.ksrcbees.org.uk">www.ksrcbees.org.uk</a>
<b>Jun, Wednesdays 3, 10, 17, 24</b>	<b>Summer Practical Meeting</b> (18:30 - 20:00) Regular evening training sessions.	<b>Henfold Apiary</b> Andrew Buchanan
<b>Jun, Sat 6<sup>th</sup></b>	<b>Mock Basic</b> (10:00 - 13:00) Advice & Coaching for the real thing on July 11th.	<b>Henfold Apiary</b> Bob Maurer/Celia Perry
<b>Jun, 11 - 13<sup>th</sup></b>	<b>South of England (Honey) Show</b> (09:00 - 18:30) Honey Competition, Show stands & displays	<b>Ardingly West Sussex</b> Pauline Sparkes
<b>Jun, Sat 27<sup>th</sup></b>	<b>Taster Day</b> (10:00 - 16:00) We introduce beekeeping practices to the public.	<b>Mickleham Vill Hall</b> Andrew Cornwall
<b>More dates?</b>	<b>The Members website has the full year's Diary Dates</b>	<a href="#">Click Here</a>

Comments about and contributions for publication in **BeeNews** will be welcomed by the editors.  
**For inclusion in an edition, contributions are required by the 25th of the preceding month.**

**Just when you thought it Safe to look inside .....**

Dare we mention the 'S' word? No sooner has the weather been warm enough for us to open up the hives and see what's what ... than we find that our industrious bees have been going at it hammer and tongs for ages already ... keeping themselves warm by their own sheer effort.

So it's action stations on all fronts. Looking out for those signs of the urge to **Swarm**, whether early or advanced; preparing to somehow manage those urges; and possibly being prepared to benefit from someone else's misfortune by receiving a swarm that exercised that urge.

For the later, make sure you read page 6 and click [So, You want a Swarm](#) for details and get yourself registered with our Swarm Coordinator **Richard Woodhouse** to receive a swarm.

To maybe help you work out quite what all those queen cells you are finding mean, read the Q&A on page 10 **Is it a Swarm or Supersedure Cell ?** .



### Learning to Manage Swarming



Perplexed by the number of different manipulations, methods and bits of hardware propounded by beekeeping worthies over the years to manage swarming ? Fear not, we are proud to launch the new **Reigate Beekeepers** Beekeeping Information Sheet '**Learning to Manage Swarming**' written by **Mike Hill**, that cuts through the jargon and keeps it simple.

Now available as a website post or to download [click here](#)

Of course the other 'S' word also needs a mention; **Show**, or to be exact, Honey Shows. Rapidly coming up are the Surrey County Show in Guildford, and the South of England Show at Ardingly. Both provide opportunities to enter honey shows for the competition ... or the fun.

**Richard & Graham**

**BeeNews Contents**

Section	Features	Page
Photo Opportunity	Attractive Homes	1
Dates for your Diary	4th May - 27th June	1
Editorial	Just when you thought it was Safe to look inside	2
Members News	Chairman's Chat - Splendid Start to the Season	3
	National Honey Show Team - Vacancies	4
Events News	Surrey County Show / South of England Show	4
	Our Own Honey Show	5
	RBK Auction & Health Clinic Reports	5
Education News	Basic - Preparation and the Assessment / Pollen Identification	6
Swarm Stories	Urgent Appeal for Swarm Boxes	6
Apiary News	New 'Out- Apiary' Offer	6
Topical News	Treatment for AFB / Introducing the Great Gatsbees	7
DIY Suggestions & Tips	How to Melt Bee's Wax	8
Questions & Answers	How do bees behave as they are swarming ?	9
	Is it a Swarm or Supersedure Cell ?	10
Meet the Committee	Buzziest Interview - Richard Bradfield	11
Website News	Follow the Members website / Members Forum on Facebook	11
	Latest Posts Summary	12

Our website is updated much more regularly than this monthly edition of **BeeNews**, so click on [Members Website](#) for lots more information and, all the latest news and activity updates.



### A Splendid Start to the Season

## Chairman's Chat

Well, what a start to the 2015 summer season !

Our first session on April 1st was certainly a little on the chilly side, but at Henfold Copse a couple of hives were opened to give 'newbees' a chance to see the living quarters of a live colony. The next four Wednesdays were really bright and mostly warm and have provided every opportunity for all the colonies at Henfold to be thoroughly inspected. I hope that, weather permitting, the 2015 season may be both very enjoyable and productive.

If the weather continues to be warm and sunny, do keep a sharp eye on the expansion of the brood and a possible consequence of them running out of room ! If in any doubt, add a super above a Queen Excluder to give them space and help suppress any urge to swarm. Or if Queen Cells are found, carry out a Swarm Prevention plan.

If you would like to take claim to a swarm, collected by our Swarm Collection Team, please [click here](#) for how to go about it - including preparing your swarm box, which should be delivered to a member of the Swarm Team in advance, and how to prepare your hive.

Recently, I have heard of a couple of cases where bees, belonging to members of RBKA and kept in their gardens, have been causing aggravation to neighbours. If it is likely that the flight path to and from the hive(s) will be over a neighbour's garden, a barrier (hedge, fence, screen) may need to be erected some 2 to 3 metres in front of the hive(s). It should be high enough to encourage the bees to fly at least 2 metres above the land next door.

Our 5th Auction, held at our Mickleham Apiary on Saturday 11th April was a howling success. It seems that the number of RBKA members, selling and/or buying was the highest to-date whilst the net value to RBKA exceeded any of the previous years. In parallel to the Auction, our Spring Bee Health Clinic was also held at Mickleham. Again, a record number of members provided samples of their bees. The clinic team who prepared, microscopically analysed and reported on the samples worked very hard to keep pace with the demand and also did a splendid job.

by **Andrew Buchanan**

A hearty well done and thank you to all the members who contributed time and effort to running the events. Also to the team who provided sustenance throughout.

I'm pleased to see that the Pavilion is already being used. After session de-briefs etc. are being held, part of our Library is laid out for browsing through, and Vince Gallo's Mead Making Group has attracted great interest.

The seats on the veranda of the Pavilion have proved very popular in the warm Wednesday evening sunshine, so if you haven't visited Henfold so far this year why not make the effort soon ? We'll be pleased to see you.

As a point of interest, over the five Wednesdays in April, an average of about 65 people have attended each session.

As many of you will know, our Quartermaster, **Richard Stuart** is unable to attend every Wednesday evening session owing to business commitments. **Alison Payne** has very kindly volunteered to stand in for Richard and will be able to take orders for equipment etc, and hand out items once delivered to Henfold Copse.

On Monday 25th May (Bank Holiday), the Surrey County Show will take place at Guildford. The Surrey Beekeepers Association will be exhibiting 'all things bee' at the show and it will be well worth a visit. If you would like to enter an item in the show please refer to our Members Website, [click here](#) for the Entry Form and the Rules and Regulations.

Finally, I reiterate apologies for the inconvenience to everyone visiting Henfold Copse brought about by the reduction of the parking area. The part adjacent to the Pavilion will take until about the end of May, with luck, before the grass will be strong enough to withstand the wear and tear. So, in the areas available along the 'causeway' and in the copse, please park tidily and as close to other vehicles as you are able. For those who see the notice on the gate to park in the entrance to our neighbouring farm, please ensure that you do not restrict the access into the farm. We are indebted to the farmer, Edward Ford, for his continued support of RBKA.

**Andrew**

01306 712773 or 07879 552 582  
[andrewb38@btinternet.com](mailto:andrewb38@btinternet.com)

## National Honey Show Team - Vacancies for two Assistants

by **Bob Maurer**

Have you visited the National Honey Show? Did you know it's the biggest show of its kind in the world, right here on your doorstep?

The show has been run, since 1923, by a small group of beekeepers, (not the same ones, although it sometimes feels like it!), who work year round to make each show better than the year before.

For three days at the end of October the team expands to over 100 people who work together like a well-oiled machine to produce the show you attend. International standard speakers are 'courted' years in advance and you may have seen their lectures posted free to view on the NHS website [www.honeyshow.co.uk](http://www.honeyshow.co.uk) There is a full series of workshops, a well-stocked trade hall and let's not forget the finest honey show you will see anywhere.

### Assistant Trade Hall Coordinator

Our Trade Hall Coordinator would like someone to help him organise the layout of the trade stands and help to liaise with the traders. This is an opportunity to get

to know all the characters who provide services to the beekeeping world. You will get behind the scenes of the world's greatest show and meet the traders.

### Assistant Lecture Convenor

Our Lecture Convenor could also do with some help. He books the speakers, ensures their accommodation is suitable, takes care of them on site, introduces lectures, and much more. You would work with him, getting to meet the world's finest speakers on beekeeping topics and help take care of them on site.

Would you like to be part of this? You don't need to be an experienced beekeeper for these roles. We are looking for enthusiastic people with good organisational skills.

You know you want to!

Find me at Henfold Copse or give me a call.

**Bob Maurer**

Wearing another of my hats as Chairman of the National Honey Show

Tel 01737 764815 Mobile 07740 707500

## Events News

### Surrey County Honey Show 29th May

Stoke Park, Guildford provides a great venue for this Spring Bank Holiday event and the Bee Tent is one of the events star attractions.

In addition to the many demonstrations and stalls going on within the Bee Tent there is the Honey Show itself. ([Click here](#) for website post)

Free tickets to the show with every 5 entries.

Enter one or more of the competition classes that offer something for all of you – jars of honey, cakes and biscuits, candles or mead, are just some of the keenly fought after classes.

**For the Honey Show Schedule, Entry Form + Rules & Regulations** [click here](#)

As many entries as possible are requested, so quickly get a group of members together or individually prepare your own entries to the show for maybe the first time this year.

Late entries deadline - 12th May

**Honey Show competitors are entitled to reduced rate County Show tickets:**

- Adults £12.50 ea (£17.00 on day)
- Senior Citizens £9.50 ea (£13.00 on day)
- Child (5-16yrs) £5.00 ea (£6.00 on day)

### SoE Show - Bees & Honey 11-13 June

The annual South of England show at Ardingly includes a 'Bees & Honey Section' that provides opportunities to enter your own Honey and other 'products of the hive' into a competition that is open to the UK's beekeepers. ([Click here](#) for website post)

Hosted at the South of England Showground, Ardingly, West Sussex, RH17 6TL, the show is open on the 11th, 12th & 13th June 2015.

Honey Show entry forms and any fees should reach the Honary Entries Secretary (our very own **Pauline Sparkes**) by 11th May 2015.

**For the Schedule of Classes & Prize List, inc. Rules and Regulations –** [click here](#)

**For the Honey Competition Entry and the Sales Entry Form –** [click here](#)

Contact Pauline on

01293 862063 or [sparkes-1@tiscali.co.uk](mailto:sparkes-1@tiscali.co.uk).

or post entry forms to:

Mrs P Sparkes, 4 Chalmers Close,  
Charlwood, Surrey, RH6 0DP

**For more info about the SoE Show visit:**  
<http://seas.org.uk/south-of-england-show/>

---

## Our Own Honey Show - Your Preparations Start Now

by *Celia Perry*

The Reigate Beekeepers Annual Honey Show will be held on Saturday 10th October. There will be lots more about it in future editions, but this is advance notice of two entry classes you need **to be getting ready for now**.

### Comb for Extraction class

To enter this class you need to first buy a set of pre-signed frame parts from Henfold Copse apiary on a Wednesday evening. All frames must be signed (on the top bar) by the nominated person before they are used or they won't be eligible for judging later. The cost of the frame is £2 and they can be purchased from the container next to the car park before and after the meeting from 6th May onwards. All you then need to do is make up the frame, pop it in a super and let the bees get on with it. This frame is judged on weight and the heaviest frame will win. The class is open to individuals and hive groups, so if your hive group at Henfold, or any hive groups in any other RBKA apiary want to take part, you just need the frame. There is no charge for frames which will

be used in RBKA hives, but they must still be signed by the nominated person.

### Microscope Slide of Pollen Grains class

This is a new class for 2015, to reflect the 'Pollen' theme of this year's show. All you budding microscopists out there can start collecting pollen to make up your slides. This class will be judged by our very own **Bob Maurer**. There will be an earlier closing date for this class than for the other classes to allow the hoped for many entries to be judged by Bob prior to the Honey Show. You will need to get your slides to me no later than the first Winter Meeting on 9th September.

*(See the Education News section on page 6 for a course that may prove to be very useful!)*

### Honey Show Schedule

The full show schedule will be available later in the Summer and will give more details of these and the many other classes you can take part in at [our](#) Honey Show.

*Celia Perry*

Entries Show Secretary

---

## Auction and Health Clinic - Reports

As our Chairman has already 'chatted' about, both the Auction the Clinic proved to be great successes, with record financial yields and numbers of colonies assessed respectively.

Fuller reports on both events are already on the Members Website, under the 'Events > Event Reports' menu tab, [click here](#), where much more detail can be found.

Meanwhile, lets hear it for the boys and girls who helped both events run so well on the day.

At the **Auction** in the Mickleham apiary ...

**Matthew Bigwood** was of course a gem, helping, with **Maggie Bourne**, to ensure that winning bidders received the correct Lot Number ticket. **Andrew Cornwall** worked tirelessly all through a long day. **Andrew Buchanan** got home later than he had promised due to handling the money. **Malcolm Fry** worked very hard to get the bids started, and then to raise them. **Vince Gallo**, custodian of the Catalogue of Lots, discovered more

by photo snapper *Richard Bradfield*

'opportunities' to improve his spreadsheet. And thanks also to **Paul Cleaver** for his gathering and chasing of the Lot registrations beforehand, marshalling of the delivered Lots, and for his 'policing' of the movement of bought Lots off the site.

Whilst over at the **Clinic** in the Village Hall...

**Bob Maurer's** team of microscopists that included **Alan O'Hea, Neil Hallam, Nigel Soanes** and **Sue Hickson** were supported by numerous 'grinders' during the day including **Jim Cooper, Alan Berridge, Simon Ford, Tom Moremon, Mary Hellings** and **Peter Moore**, with admin provided by **Gill Simpson**.

And, of course, EVERYONE was provided with sustenance in the form of tea, coffee, bacon rolls and cakes (baked by yet many more) served up by **Maggie Minter, Celia Perry, Dreen Legg, Suzy Stevens** and **Karen Ford**.

*That's at least 24, with apologies to anyone we have overlooked.*

### Basic - Preparation and the Assessment

by *Celia Perry*

RBKA encourages everyone who has been keeping bees for at least a year either in their own apiary or at Henfold Copse, to take the BBKA basic assessment.

This is a practical assessment carried out on a one to one basis between the candidate and the assessor at Henfold Copse.

#### **This year the Basic Assessments will be held on Saturday 11th July.**

If you want to take the assessment on that day then you must let me have your payment and your completed application form which must be countersigned by your hive tutor, no later than Saturday 6th June.

I normally have some application forms with me or you can download one from the BBKA website, under the Learn / Examinations and Assessments tab, [click here](#).

Please don't leave it until the last moment to give me your form as I need to plan the timetable and work out how many assessors we will require for the day, so the sooner you can give me your form the better. If you miss me at Henfold you can post the form to me at White Gables, 68 Broadhurst, Ashted, Surrey, KT21 1QF. If the email address on your form is legible I will acknowledge receipt.

#### **Preparing for the basic assessment**

Come along to the mock basic assessment run by **Bob Maurer** for RBKA basic candidates on Saturday **6th June** at Henfold Copse starting at **10 am** and lasting about 3 hours.

The event will guide you through what to expect on the day itself, including what happens at the

hive and the sort of questions you may be asked by the assessor on the day.

It is a very worthwhile way to spend a Saturday morning and should mean that you are well prepared for the assessment itself. No-one is 'put on the spot' and I would encourage you to attend.

Bob is a BBKA Basic assessor. He won't be taking you for your Basic on 11th July, but he has many years experience of assessing candidates and so is a source of very useful hints and tips.

*Celia Perry*

Surrey Exam Secretary

### Pollen Identification for Beekeepers

This training course is being run on the **31st May** by the **Kent Science Resource Centre (KSRC)** and although principally for Kent BKA members, is being offered to people from neighbouring counties.

The course involves the use of microscopes to deal with that vital component of our bees' diet – pollen. Topics include basic botany to understand how flowers work, how bees get pollen back to the hive and using Rex Sawyers book 'Pollen Identification for Beekeepers', the characteristics of pollen, and how these may be used to identify which plants have been visited will be explored.

Want to know where your bees go to forage when they leave the hive?

This may be the course for you!

Visit their website at [www.ksrcbees.org.uk](http://www.ksrcbees.org.uk) and follow links to the bookings page.

For more details on our website, [click here](#).

## Swarm Stories

### Urgent Appeal for Swarm Boxes



As many of you will already be discovering, the bees will not wait for beekeepers to be ready and equipped to re-house them.

Your team of Swarm Collectors need YOUR boxes, properly prepared, in order to rescue worrisome swarms from public and domestic sites and provide you with ready made colonies. Go to [So, You want a Swarm](#) to find out what to do and who to contact ... **now**.

## Apiary News

### New Out-Apiary Offer



Our shrinking list of potential Out-Apiary sites offered to members by the local public has a welcome new addition.

Described as half an acre of garden including a strip of woodland, the site in Oxted could suit a couple of hives.

Visit the website [Apiary News>Out Apiary Offers](#) for the full list, more information, and about enquiring further via **Maggie Minter**.

### Treatment for American Foul Brood - Using Bugs to Save Bees

Could this be the answer to AFB ?

A recent article published in the journal BMC Genomics raises a glimmer of hope of finding a biological means of controlling the highly infectious spore-forming bacterium *Paenibacillus larvae* that causes the statutory notifiable and devastating disease.

Work at Brigham Young University, USA has explored the potential for using bacteriophages - tiny viruses adapted specifically for targeting and attacking bacteria - to help control the causative agent of AFB.



Although in some parts of the world antibiotics have been used against AFB-causing bacterium, antibiotics do not control the resting spores, also resistance has become widespread and there is understandable concern about antibiotics getting into honey.

In the UK the only permitted course of action on diagnosing AFB is to kill and burn the affected colony to avoid the disease spreading to other colonies.

Bacteriophages may offer an alternative although, realistically, an approved treatment is still some distance in the future. Bacteriophages are natural, abundant and generally specific to individual species, if not individual strains of bacteria.

Early tests applying phages as a sugar solution sprayed on to bees and combs show promising results, but further studies will be needed to verify their efficacy and safety (eg to beneficial gut bacteria).

Five phages specific to *P. larvae* have so far been discovered and characterised, and more are expected as the studies to find the perfect phage continue.

For more background and context click

<http://lifesciences.byu.edu/LabsResources/Resources/CollegeNewsOld/Fall2014/>

*courtesy of West Cornwall BKA*

---

### Introducing the Great Gatsbees

*Back in the December edition of **BeeNews** we mentioned that bees had landed at Gatwick Airport. This month we include an update on their progress by Tom Simpson, Gatwick's Wildlife Officer.*

Gatwick Airport was recently awarded The Wildlife Trusts Biodiversity Benchmark Award in recognition of the protection and enhancement of the airport's landholdings for wildlife. This certificate is the result of three years work by a team from Sussex and Surrey Wildlife Trusts, the Gatwick Greenspace Partnership and many environmentalists, ecologists and volunteers.



After completing the Central Sussex Beekeeper's theory course in beekeeping I asked to be put in contact with a volunteer to bring a hive of bees to Gatwick and teach me the practical side of things. I was thrilled when **Gill Sentinella** from Reigate Beekeepers got in contact and we gained not only her expertise but a team of tens of thousands of tireless workers.

We moved three colonies onto the Airports conservation areas in April 2014 and their arrival added a whole new dimension to Gatwick Airport's conservation efforts. The Great Gatsbees are helping to pollinate our grasslands and benefit the area in general.

Click this link to read more, including Gill's blog posts about the Gatsbees

<http://biodiversitygatwick.blogspot.co.uk/2015/04/gatsbees-b-log-march-2015.html>



### How to Clean Bee's Wax

Remember that wax is valuable - don't throw it away! You can make candles, wax flowers, polish and cosmetics, or exchange it for new foundation from your equipment supplier.



One of the best ways is to use a solar extractor. Make one yourself. Most designs are simply a wooden box with a stainless steel insert - check the internet for designs. Or alternatively click <http://youtu.beKSekQk2Zc9Y> to watch a video about how to make a cheap extractor from a disused polystyrene fish packing box, available from your fish monger.

A few more tips:-

- Put your old wax into discarded tights/stockings before putting it into the solar extractor, which will reduce the amount of cleaning of the extractor.
- Have some foil cooking containers (which are not expensive) to catch the wax.

If you don't have an extractor you can melt it in your kitchen. Use two old saucepans, one that fits inside the other - (or better still a slow cooker and another container inside).

You may try initially washing the wax under the hot tap to remove any stickiness and particles.

Fill the outer saucepan with water before putting it on the heat. Pour water (preferably distilled) into the inner saucepan and break up pieces of wax. Wait for the wax to melt. Then allow to cool. The wax will float to the surface and you can discard the dross below.

Remember the longer you heat the wax the darker it becomes. The first of the various waxes that are present in the comb start to melt at 64°C, and the wax progressively darkens if heated to temperature greater than 70°C. So keep it below 70°C.

When it has all melted pour the wax through a coarse metal kitchen sieve held above a warm china or glass jug covered with a nappy liner folded in two and fixed with an elastic band. (Nappy liners can be obtained from Boots.) Stop pouring the wax before reaching the water at the bottom of the container.

Pour the remainder, including any water, through the sieve and into a container such as a plastic cream carton covered with a folded nappy liner. The mix will separate on cooling and the disk of wax will need hardly any scraping to remove impurities at the water/wax interface.

Don't leave the wax heating unattended - hot wax can cause a fire, if it overflows and lights it's just like burning a candle. Don't have children or animals around, accidents happen.

To obtain really good wax for special applications use cappings after you have extracted your honey. Show wax should ideally be light primrose in colour so select wax that is light in colour from the wax that you have already cleaned as previously described. This can be further filtered as follows.

Calibrate your oven to cycle in the range 64-70°C, using a digital display thermocouple such as those available from Maplin Electronics.

The wax is melted / filtered in the oven through lint (fluffy side up), using a small two part stainless steel steamer. The bottom section contains distilled water to catch the wax filtering through the disk of lint cut to shape the base of the top section. Rolls of lint can be obtained via the internet or from your local pharmacist. Filtering an 8 oz block of wax takes some six hours, so it is best done overnight. Perfectionists may want to repeat the process.

'Sticky-Stuff Remover' available from Lakeland Plastics or Aldi is magic for cleaning and dissolving wax film from cooker tops and tiled kitchen floors - just in case you need it !!

*adapted from articles by Jenny Gammon, Taunton BKA and Douglas Nethercleft, Warwickshire BKA*

### **Question - How do bees behave as they are swarming ?**

*Last month we explained how bees behave as they prepare to swarm and this month we consider how they behave during swarming.*

#### **(1) Finding a New Home**

Scouts from the hive will have been searching for a suitable cavity, in which the swarm can establish itself, for some days before the swarm issues. Once out, the search becomes urgent. A scout discovering a suitable nest site will return to the swarm and perform a waggle dance to 'tell' the other bees both its distance and direction. Some will be recruited to visit the site and will also return and dance. A bee visiting a cavity will inspect it, walking around the outside and inside and making short flights inside, apparently assessing the size. She will scent mark the cavity and its entrance using her Nasonov pheromone as well as the footprint pheromone, which she leaves wherever she walks. She may return several times. Of course, there will probably be several cavities visited, all eliciting dances. Competition between the various cavities will ensue and finally a 'decision' will be made.

#### **(2) Setting Off for their New Home**

With the decision made, it is up to the scout bees to mobilise the swarm. They start to push through the swarm, piping as they go. This starts about one hour before the swarm lifts off and results in vibrations in the swarm which cause the temperature of the swarm to rise, enabling all the bees to fly. The swarm bees also commence buzzing runs on the surface of, and through, the swarm, and these reach a climax just as the swarm lifts off. It then rapidly moves off in the direction of the chosen cavity, led by the scout bees who perform dashes backwards and forwards through the swarm and emit Nasonov pheromone. The queen is an essential part of this operation as her mandibular pheromone is necessary to keep the swarm together. If at any stage the queen is lost the swarm will break up or return to its original hive and no amount of Nasonov pheromone can replace her.

#### **(3) Moving into the New Home**

Once the swarm reaches its goal most of the bees immediately go inside, but

some remain around the entrance fanning Nasonov pheromone. It is amazing just how quickly a swarm will disappear and then their work really begins.

#### **(4) Meanwhile back at the Ranch**

To successfully complete swarming the original colony must produce a new queen and get her mated, so that the colony can build up its numbers again and gather sufficient food to survive the Winter. There will usually be a number of queen cells at various stages of development with at least one sealed when the swarm departs. Once one queen has emerged there will be a great deal of piping by both the free queen and other queens still in their cells. The workers will control any casts that emerge, largely influenced by the amount of sealed brood giving off brood pheromones, and the number of bees present. They hold queens in their cells by performing dorso-ventral abdominal vibrating (DVAV) dances on the queen cells but sooner or later one queen will emerge as the new potential mother. The workers will allow her to kill any remaining queens in their cells and this is influenced by the piping sounds that the sealed queens make in response to the piping by the free queen.

A newly-emerged queen will have few pheromones, but these will develop over a few days and then she will become more attractive to the workers and will be pushed out of the hive on her mating flight(s). She will fly to Drone Congregation Areas (DCA) where drones will be attracted to her by her mandibular pheromone. When a drone approaches to within about 30 cm of the queen, another pheromone, from the queens tergite glands, comes into play and this, together with an open sting chamber, results in copulation. The drone's huge eyes also help him chase the queen. A few days after returning from her mating flight the queen will begin to lay and the colony will settle down again.

*courtesy of Celia Davis and Warwickshire BKA*

## Question - Is it a Swarm or Supersedure Cell ?

At this time of year as the colony grows, and during the next few months we are inspecting for queen cells in order to determine if the colony is planning to swarm. But can we tell if it is a 'swarm cell' or a 'supersedure cell' ?

**Supersedure cells** occur when the colony has decided to replace the current queen. The supersedure cell is started as a natural queen cup. The colony raises only a few of these cells, commonly one to three, and they tend to be nearly uniform in age.

They are typically raised on the face of a brood comb and on the same frame, not along the comb edge and near the bottom bars like swarm cells. These cells are usually long and heavily covered with beeswax.



Typical supersedure cell on face of brood comb

Supersedure cells can occur any time in the active season when a queen is failing. In the process of natural supersedure a new queen develops, while the old one continues to lay eggs. The old queen is not killed until the new queen has successfully mated and begun egg laying. This toleration of the old queen may be a safeguard, ensuring the presence of a laying queen in the event of the virgin queen failing to return from her mating flight. In some cases, the young, new queen and the old one may both live in the hive in harmony for some time, but generally the old queen is killed at the end of the supersedure. It is not known whether she dies a natural death or is killed by the young queen or by the bees.

**Swarm cells** are also built from queen cups and are for raising new queens when the bees prepare to swarm. Swarm cells are the most numerous; about six to twelve are generally produced. (Some colonies may even build up to fifty of them.)

These cells are typically located on the bottom portion of the comb or in gaps in the comb within the brood area. In general, several cells are started at intervals during a period of several days and are seen at various stages of development.



Typical swarm cell on the edge of brood comb

Drone cells are often in the vicinity of swarm cells, but should not be confused with them. Drone cells usually occur in groups at the edge of the frame, and there may be hundreds of them. They are bigger than worker cells, their surface is 'pebbly' or like cobblestones and is rounded, whereas worker cells are flat on top.

**Emergency cells** are built when a colony becomes queenless. The queen may have been killed accidentally, or dropped onto the ground during hive manipulation. Emergency cells are also started if the queen is removed from a colony by the beekeeper when making an artificial swarm.

The bees in such a colony begin to raise a new queen in a hurry by converting worker cells containing young larvae into emergency queen cells. The number of queen cells produced under emergency impulse is variable and depends upon the size of the colony. In a strong colony many are sometimes raised; a small or weak one makes a few. Often the bees will build two, three or more at the same time.

**Other Clues** - Location of a queen cell is not the only indicator. Other clues that a hive is preparing to swarm should also be noted - large population, limited space, a two year old or older queen. Also some beekeeper manipulations may be the primary cause of supersedure, and have nothing to do with a queen failing. Excessive supersedure may mean there is some disease.

*adapted from Khalil Hamdan, Apeldoorn, The Netherlands*

## Meet the Committee

### Buzziest Interview - this month: Richard Bradfield

**BeeNews:** What's happening ?

RB: Having an identity crisis ... answering questions I have just posed to myself.

**BeeNews:** How long have you been keeping bees?

RB: Since I was presented with my first colony during the summer of 2008; a swarm hived into my pristine new equipment by Eddie Webster.

**BeeNews:** Why beekeeping ?

RB: A combination of attending a fascinating West Sussex BKA Taster Day with all the family during 2007, a beekeeping neighbour and an early retirement opportunity that would provide time to be filled.

**BeeNews:** Why Reigate Beekeepers ?

RB: Searching during late 2007 for local clubs and training opportunities, I came across RBKA and its 2008 Winter Course. Signed up for that, then joined up in the April.

**BeeNews:** How many hives to you manage?

RB: As, I expect many beginners do, I thought that one or maybe two would be sufficient. But eventually accepted a little more 'flexibility' is required. I am now set-up with 4 National hives and a nuc, but aim to only run two or three colonies during the summer season.

**BeeNews:** What RBKA roles are you involved with?

RB: I first joined **Richard Woodhouse's** team of Swarm Collectors. That drew me into some of the mechanics of the division, and when **Mike Hill** was looking to stand down as editor of the newsletter, I happily pitched in, along with **Graham Pooley**. That led to an interest in developing the website with Graham and **Jack Chapman**. And when Jack was looking to stand down from the Committee I was prepared to step in and become their 'communications media' representative.

**BeeNews:** Have you experience in publishing ?

RB: I co-produced a SCUBA club's newsletter for three years, churned out regular Christmas



editions of a departmental 'rag' for the team I worked with, and managed an on-line global forum of Packaging Engineers for a few years.

**BeeNews:** Any message for the members ?

RB: Already in a position of being able to occasionally 'sound off' in the **BeeNews** editorial that Graham and I produce each month, its difficult to add to the messages we already provide. Except to stress that I would welcome much more content for the website(s) and these **BeeNews** pages from regular members. And I would love to see more dialogue about the content that is published.

Communication needs to be a two way process.

**BeeNews:** Thank you Richard.

Next Month: the third of the three new Members of the 2014/15 Committee ... Andrew Cornwall.

#### Follow the Members Website

Always be up-to-date with new items of news, notices, or information. No need to visit the website only to see what might be new, or to wait for the next **BeeNews** edition.

**To follow the Members Website** and receive emails about new posts as they are published, [click here](#) then click [Follow](#)

#### Join the Members Forum

Are you an avid or even occasional Face Book user? Would you like to be able to share your own news or photos about your beekeeping with other members ... without broadcasting to the world? Why not register for access to our private **Members Forum Group** page on Face Book. [Click Here](#)

### All New Items on the Members Website

The Members website is regularly updated and added too. If you have not visited the site and browsed since the last **BeeNews** was published, these are some items that may be new to you.

Catch-up now ... **click on the items to view in full.**

#### Surrey County Honey Show 25<sup>th</sup> May



This is a great venue for everyone and the Bee Tent is one of the star attractions, providing great opportunities to meet with other divisions.

Enter one or more of the honey competitions – jars of honey, cakes and biscuits, candles or mead are just some of the keenly fought after classes...

#### May in Your Apiary



May is usually the month in the beekeeping year when activity accelerates very quickly. If you are not well prepared, you will be caught out!

The rape crop in many areas started in the third of April. Horse Chestnut and May Blossom (pictured) started emerging in the last week of April...

#### So, You Want a Swarm?



The team of Swarm Collectors are already receiving calls from the public about swarms of Honeybees, so the Swarming Season can certainly be considered to be already underway.

Where feasible, swarms will be captured ... BUT the team members will each need prepared swarm boxes from YOU to be on hand to put them in....

#### South of England Show 11-13<sup>th</sup> June



It's that time of year again and the South of England needs you!

The 'Bees & Honey Section' of this annual event provides opportunities to enter your own Honey and other 'products of the hive' into competition that is open to the United Kingdom's beekeepers.

You can also provide product to sell....

#### May Tips Checklist



The burst of 'Summer weather' in April has seen an early start to the season, with a rapid build up by many colonies, and some very early swarms.

So now is the time to ensure you are prepared for all eventualities and the acceleration in the activity of your bees...

#### Meon Valley Annual Auction Sale



Bees and Beekeeping Equipment to be sold by Public Auction. Starts 1:00pm Saturday, May 9 2015. Viewing from 11.30 am. on the day of the sale at

The Greatham Village Hall, Near Liss, Petersfield, Hampshire. GU33 6AD

[www.greathamvillagehall.co.uk](http://www.greathamvillagehall.co.uk)

#### The Flow Hive - What Is It?



The answer to every beekeeper's dream? No more sticky, messy uncapping and extracting of honey?

Lower cost beekeeping since, all that expensive equipment for uncapping, extracting and filtering of honey won't be needed?

Surely, this is a wonderful technological breakthrough for beekeepers! ...

#### Mead & Metheglin Making Group



Mead & Metheglin Making kicked off at Henfold on the 15th April, guided by Vince Gallo. For those interested, and signing-up, the sessions are scheduled to commence at 7:30pm in the pavilion.

Planned Activities:- It is planned that the members of the RBKA Mead Group will train each other ...