The HBKA Buzzzz Word

April 2012

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

NOVEMBER 2015

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DATES FOR YOUR 2015 & 2016 DIARIES

Friday 6 November - 6.30pm for 6.45pm
East LAN Christmas Dinner - The Plough , Stoke Lacy

Tuesday 17 November - 7.15pm for 7.30pm
HBKA President 's Choice Evening - David Viner on Local Canals - Three Counties Hotel, Hereford

Thursday 19 November - 7.15pm for 7.30pm
East LAN Brains Trust Evening - Bishops Frome Village Centre

Tuesday 16 February 2016 - 7.15pm for 7.30pm
Evening Meeting - Three Counties Hotel, Hereford

Tuesday 15 March 2016 - HBKA AGM - Three Counties Hotel, Hereford

WHY IS THIS DRONE PRONE??

See THE DRONE ZONE (page 6 inside) for intimate and revealing details …!!

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EVENTS

MEAD - A TALK BY DINAH SWEET - TUESDAY 13 OCTOBER

On 13th October about 40 of us gathered for the HBKA meeting at the Three Counties Hotel to hear an illustrated, and audience participating, talk by Dinah Sweet MB, Dip. Apiculture, who is a National Judge for Mead, and highly experienced in other aspects of beekeeping. It was a very informative and enjoyable evening.

She told us of the various kinds of mead: Plain mead, which is made simply of honey and water; Melomel, produced from fruit juice and honey; Pyment from red or white grapes and honey; Hyppocras, made from grape juice, herbs and honey; Cyser, from apple juice and honey, and finally Metheglin, which is made from plain mead to which spices are added.

There are two principal methods of making mead - the boiling method and the cold method; there are several stages in both processes. There are differing additions, a choice of the best type of yeast, fermentation, racking and mixing before bottling and finally tasting.

It is very important to kill off any natural yeast and use only a purchased wine yeast. Boiling kills off the natural yeast which can make the mead taste vinegary. The ideal containers for fermentation are one gallon Demi-johns. The additives one might use are: citric acid, some nutrients and vitamins. It is important to add pectin if using apples to make Cyser and a little tannin may be used generally as well. Melomel can be made using most kinds of fruit.

The Basic Equipment - a food grade plastic bucket, a large pan, a demijohn, a bung with an air lock, a bottle cleaning brush, bottles and corks, Camden tablets(meta bisulphate), a funnel, a plastic tube and a hydrometer to test the specific gravity, >1 sweet mead and <1 dry. Fermentation should take 4-6 weeks. Take a hydrometer reading after two months.

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The Boiling Method - use 1 - 11/2 lbs fruit and boil with 1/2 gallon water for 1/2 hour. Use 3 - 4 lbs honey. Add the honey to the juice and boil for a further 1/2 hour. Add the other 1/2 gallon of water and leave to cool in the Demi-John. When just warm, add the yeast and any other additives. Leave to ferment in a warm place with the air lock.

The Cold Method - use a large bucket and the same amounts of water, honey, yeast and other additives (be careful about stray yeasts). Make up a small amount of honey, warm water and yeast in a bottle and when fermentation has taken place, add this to the bucket. Put in Demi-John and leave with an air lock.

Dinah offered various tips to those intending to 'have a go'.

- Don't fill the demijohns right to the top or they will overflow through the air lock - 7/8 is sufficient.
- Don't use bread yeast - there are many other sorts, champagne being one of the most versatile for fermenting mead.
- After racking,, top up any space in the demijohn with other mead rather than water.
- Cloudy mead can be cleared with finings. e.g. isinglass - or pectinase for Cyser.
- If entering your mead for show, fill to 1" below the cork and make sure bottles are spotlessly clean both inside and outside.

At several stages during the evening Dinah treated us to samples of her own mead ***(see right),*** some 2 year old and some only a few months old - an interesting difference in taste! One or two members also brought along their own mead which we were also able to sample.

It was an excellent evening and inspired some of us to have a go if we had no previous experience.

Many thanks to Dick Hailwood for this excellent report of the evening. It's good to have the details of what I attended set down here in print because, after the first few delicious sample tastings, I did begin to find it rather difficult to remember what was going on! (Ed.)

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...AND COMING SOON...

HBKA PRESIDENT'S CHOICE EVENING

Tuesday 17 November – Three Counties Hotel, Hereford – 7.15 for 7.30pm start

Although his Presidency has unfortunately been blighted by illness, Jim Oliver has invited his friend David Viner to talk to us about our local canal heritage.

David *(pictured left)* joined British Waterways in 2002 with a background in education, carpentry and joinery. He has a particular interest in lime mortars and lock heritage. He is the main point of contact for the team for historic boats and is currently developing guidance on the disposal of unlicensed boats. David was involved in the restoration of the Cotswold and Droitwich Canals and enjoys looking after key sites such as the Caen Flight and Gloucester Docks.

Our own local canal, the Gloucestershire & Hereford, is not one with which he is directly associated as it is being restored by the Canal Society - but he does know some of the people involved and the history of the canal too. He plans to cover the arrival of the canal era and focus on what happened across the west - Gloucestershire, Worcestershire and Herefordshire - plus probably the Monmouth & Brecon canal in Wales as this had a horse drawn tram link to Hay and Kington.

David aims to avoid tedious facts and figures in his presentations and likes to tell the story using interesting photos and plenty of anecdotes….. and humour! It should be a good evening …

Hopefully, as many HBKA members as possible will come along on the 17th to support Jim and help to make David's presentation a real success (Ed.)

NEWS & FEATURES

COMMITTEE CORNER

The main issues discussed at the last meeting of the HBKA Executive Committee on 22 October were as follows:

- Evaluation of the 2015 Honey Show - there were a variety of views as to the success or otherwise of this important event in the HBKA calendar. The appropriateness of the venue and the attendance figures in view of the clash of dates with both the Malvern Autumn Show and the Rugby World Cup were commented on. The date of next year's Honey Show was confirmed as 17/18 September, one week ahead of the Autumn Show. Other decisions were suspended pending further discussion.
- BBKA Member Survey (Oct-Dec 2015) - after some discussion it was felt that HBKA members would not know a great deal about the background to this survey which comes at a time when the workings of the BBKA have come under great scrutiny and criticism from many of its member associations. It was agreed that the Chairman would put together some background material that could be circulated to the membership directly via email and in the newsletter.
- Newsletter - it was decided that printed copies of the newsletter would cease to be produced at the end of next year. This should give the six members who still receive paper editions adequate time to make arrangements to view the electronic edition either on-screen or as a computer printout.
- Risk Assessments / Health & Safety - completion of the annual return to the Charity Commission had highlighted the need for the Association to have policies for risk assessment and, possibly, for volunteering. Work would need to be done on this over the next twelve months.

When the Committee meets again, any items of note will find their way into this corner of The HBKA Buzzword.

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WARNING - you are now entering …

THE DRONE ZONE

COLIN PAVEY, our local SBI, writes:

There is often quite a bit of bee debris around the hives; wax shreds fallen through the varroa floor, dead bees out the front, sometimes a few lost loads of pollen.

On one occasion last season, there was a dead bee on the roof of one of my hives. Not that unusual you might say, but something made me investigate further. It was larger than a worker – a drone, upside down – and on examination, I found that, somewhat unusually, his mission, (or perhaps more appropriately, his emission) had been accomplished!

We learn a lot about the workers, their development and their in-hive tasks; we hear much about the queen, especially in relation to seasonal colony development and swarming; but the drone - we know he's there for mating, but other than that, we don't get much detail on beginner's courses or in the general bee texts.

Drones pass from hive to hive and hang out in drone congregation areas; these factors combining to help provide a spread of genes. Mating takes place in mid air, the drone's large wings and powerful flying action being needed to chase and catch the virgin queen. After coupling, he is kicked off and further drones are engaged. 'My' drone must have got to the queen soon after she left the hive.

The drone's sexual organs are held within his body and in mating, are turned inside out in an explosive action, driven by the contraction of his abdominal muscles.

These photos show some of the detail; the two outer appendages are grippers or claspers, which, along with his six legs, hold the drone over the queen during mating. The penis cannot be seen in the photos because it is torn off and left in the queen, sometimes being seen on a returning queen and referred to as the 'mating sign'.

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WHO IS THE MOST IMPORTANT HONEY BEE? - by Celia Davies

You would think the queen, and in some ways she is, but, from a biological point of view, it is the drones.

Drones are normally produced from unfertilised eggs laid by the queen, but can occasionally result from fertilised eggs or from worker-laid eggs where a colony has become queenless and broodless. All good colonies, once they have built up in the Spring, start to produce drones and the estimates of the amount of comb devoted to drone rearing vary widely. A natural full colony will have probably 10-13% of its comb area devoted to drone production although this may be higher. A weak colony may have very little.

Drones are produced early in the year, as they must be ready for the main swarming season when they will be required to mate with the young queens. The bees then maintain a population of drones until later in the Summer when they are turned out of house and home and left to die, as they are no longer needed. During the Summer there is a feedback system in operation so that, as drones are lost from the colony, new ones are reared to replace them.

Use of Resources

Drones are bigger and heavier than workers and their larvae are fed for an extra day or so more than those of workers. As a consequence they eat more.

The demands on the colony do not end at hatching, as drones are not sexually mature until they are about two weeks old and must be fed on brood food by the nurse bees as their muscles and some of their reproductive organs continue to develop during their first week in the hive. At this time their demand for protein is high. After this they begin to feed on more nectar from the cells and continue to feed heavily as they move to mating flights. Flying uses 14mg sugar/hour compared to 1–3mg/hour used when resting. The average drone flight lasts for about thirty minutes after which they need to refuel.

It is clear that the colony invests a great deal of its resources in rearing the several hundred drones that it maintains. We need to ask why, when they could be rearing more workers to boost the colony and ensure more stores for winter survival.

The answer is that the drones carry the genes of the colony into the general bee population and the more fit, healthy drones a colony produces, the more likely it is to get its genes into the next generation of bees. A strong colony can have a major effect on the wider bee population.

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The Big Mystery

When drones go on mating flights they travel to drone congregation areas. These are more or less constant from year to year despite the fact that there are no old drones to show young drones the way.

Just how they are located is still a mystery but it is believed that they use topographical features. It seems significant that drones develop magnetite granules in groups of cells in their abdomens from about the 6th day of adult life and this may suggest use of the Earth's magnetic field. However they get there, thousands of drones may collect in these areas and young queens will fly there to mate, probably attracted by drone pheromones.

The multiple mating necessary for each queen can be accomplished rapidly. Of course, the individual drone mates only once and dies immediately after mating, although his sperm live on in the queen's spermatheca.

A Perfectly Adapted Bee

Beekeepers often regard drones as a waste of space because they do not seem to do much, but they have one function only, to mate with a young queen, and their structure and life-style are beautifully adapted for this to the exclusion of all else. They do not have the 'tools' that the workers have, so they cannot bring in nectar or pollen, feed young, make wax, convert nectar or even feed from flowers. The part of their brains associated with learning and memory are reduced and, of course, they have no sting. They do have increased numbers of sense organs on their antennae, to detect queen pheromones and they have huge eyes, which somehow make them quite endearing.

There is a lovely section in The Irish Bee Guide which was written in 1904 by Rev. Digges: 'Theirs is a life of brief dependence and submission. They gather no stores; nature has not fitted them to do so. The one object of their existence is to fertilise young queens. To that end they are born, are tolerated in the colony, and are allowed free access to the honey cells. Theirs also, is the sacrifice of life to duty; and such of them as survive to the close of the Autumn are driven from the hive to end, in cold and hunger, a life which, if seemingly idle or useless, was at least inoffensive and full of possibilities whose vastness fills with awe and amazement every thinking mind.'

A beautifully adapted, very important bee. So respect your drones and appreciate them as a result of evolutionary perfection. Particularly at this time of year when their fate is sealed and any that remain will be ejected from the hive.

This article comes courtesy of Celia Davis and Warwickshire BKA via eBees - many thanks to both Colin and Celia for shedding some much- needed light on the down- trodden drone. (Ed.)

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BOB'S BEELINES FOR NOVEMBER

Still a couple of things to watch out for everyone:

- The weather is still mild so keep a check on the stores in your hives. Just lift the back of the hive and check the weight. You can feed candy if necessary.
- Now is the time to put your mouse guards on and watch out for that green woodpecker. (Remember him from last month's Buzzword?)

On the 4th of October I picked up a swarm of bees about 2 litres in size. They went into a polystyrene nuc. box on drawn out comb plus 2 pints of syrup. On the 8th of October I found 300 to 400 eggs - so I have a laying queen! On the 15th of October there was a very nice patch of good sealed brood. With a bit of luck it should make a good colony for next season.

That's all for now,

Bob and Kath Cross.

PS We have plenty of candy in stock if needed - just ring us on 01886 880554

And finally, a recipe from fellow HBKA member, John Harley. We' ll be hearing more from him next month - meanwhile, why not settle down in front of the fire with some buttered toast and a jar of John' s Honey Curd (and possibly a glass of Dinah Sweet' s mead too!) and let the cares of the world fade away - for a while, at least (Ed.)

HONEY CURD

Ingredients:
3 egg whites
4 egg yolks
300 ml (½ pint) clear honey
225 g (8oz) butter
Juice and grated rind of 2 (unwaxed) lemons

Method:
Clean and sterilise jar(s). Mix all ingredients together and place in a double saucepan. Cook over a very gentle heat, stirring until the mixture thickens. Pour immediately into warm jars and allow to cool. Store in a warm place.
(Makes about 1 lb).

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If foul brood is suspected, contact our local RBI
contact our SBI, Colin Pavey on 07775 119471/ email colin.pavey@fera.gsi.gov.uk

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