

Brighton & Lewes Beekeepers



Newsletter December 2015

BRIGHTON AND LEWES DIVISION OF THE SUSSEX BEEKEEPERS ASSOCIATION
www.brightonlewesbeekeepers.co.uk

Next meeting - Dec 16th, Dave Cushman and his website

When I started beekeeping Dave Cushman's web site was a valuable source of information for me. Sadly Dave died not long ago. Roger Pattison is now the sites custodian and will tell of it's history and current state.

Last meeting - Showing bee products, November 18th

Although this talk was originally billed as "Preparing honey for show", Mollie Bonnard widened the subject matter out to include other bee products. Mollie drew on her considerable experience showing and judging to enlighten all present as to just how it should be done. From straining honey (but not overdoing it), to following the schedule very carefully and presenting to the best effect. There was a lively question time, as well as many comments during her talk.

As requested many members brought a pot of honey for a tasting session afterwards (Mollie was able to use many of the samples to emphasise her points). It's simply wonderful how many different flavours honey has. Paletes were suitable cleansed after a surfeit of honey with tea/coffee and cake under the supervision of Heather.



Merry Christmas and a Happy New Year
from the committee to all members

The Honey Show - Photos and words, Bob Curtis



The 84th National Honey Show, which has been held at St. George's College, Weybridge for some years, was bigger than ever. There was a new hall

for the Honey and Wax exhibits, plus a second trade hall and lecture halls, all of which seemed well attended. It is a fascinating event, with lectures by international speakers, who are all experts in their field. I decided to visit the Show on both the Friday and the Saturday, in order to be able to hear a few lectures as well as visit the stands. The displays this year were spread over eight rooms; there was honey to be viewed in jars in various states and "flavours" as well as on the comb.

Wax as candles, flowers, raw polished wax and as a block - you name it someone had done it. As you walked into this room the fantastic aroma from the wax displays was amazing.

There was mead - but no tasting! Inventions of various sorts filled one room, from new types of floor display methods, oxalic treatment boards and more; we beekeepers are an inventive bunch.

The lectures are always worth a listen. One, by Dr. Deborah Delaney from the University of Delaware,

was on the "Sustainability of the Honey Bee" (which was supposed to be Integrated Pest Management for Small Scale Beekeepers, but she decided the title was too long!) was very up beat. It basically followed the principle that splitting or shook swarming, tracking the number of Varroa until they reached the Economic Injury Level, then treating (she had tables, etc. to explain). Is the way forward? Luckily this is what most of us try to do. Another lecture on feral bees showed that in fact they are less healthy than managed bees and probably the colony dies out regularly, most likely then being replaced by a swarm.

Phil McAnespie covered "Swarms and Swarm Control". He went through all the figures and signs to look for. If queen cells are at day 8 the old queen will swarm. Six weeks before swarming, drones begin to appear. Never cut out queen cells until you have seen the queen! Give plenty of space. Clip your queens, then when they swarm they only go a few yards. Don't be surprised if there is more than one queen. He finished with artificial swarming. If all else fails wipe your bait hive with Lemon Grass Oil. This was all good advise which we tend to forget.

Amongst the exhibitors were Thornes, Mann Lake, Maisemore, Brunel Microscopes, Sherriff and BB Wear and many others selling everything you might ever need. I would thoroughly recommend the Show to anyone who hasn't been, allowing plenty of time to attend a lecture or two, as well as a good stroll amongst the exhibitions and trade stands.



Amanda advises

What unpleasantly windy and wet weather we have been having in November. It has been very difficult to find conditions suitable to complete the icing sugar treatment on the colonies at Grassroots which still have a lot of mites. One colony keeps dropping about 300 every time, the others are showing reducing mite drops and some no longer need dusting.

I have heard that some members' colonies have a lot of white crystallised ivy stores. I have not looked in mine recently but could smell they had been busy on the ivy. A strong ivy flow does not happen every year but it seems to have been this year. As much of this would have been collected during and after the normal top up of stores with syrup it should not be their sole store supply, and as bees have had to cope with ivy since the ice age ended, I am not too concerned. It should mean they will not go hungry providing the weather is mild and they can collect water to make use of it. If we get a prolonged spell of very cold or sub zero temperatures then it might cause problems. Make sure the bees have water nearby, or give them a shallow tray filled with gravel or something to prevent drowning, in the apiary, or even an entrance feeder of water.

I have put bricks on or tied down the roofs with straps in my apiaries, particularly the out apiaries which I do not visit so often. I don't want the roofs to blow off and expose them to cold and rain. I did find one roof off in what I thought was a sheltered out apiary, last year.

Having seen the first snow yesterday and woken to a white frost this morning (22.11.15), I am reminded of the insulation debate. Some people do not put any insulation on top (after all Thomas Seeley does insist that it is the cluster they keep warm and not the hive), others have it on all the year round. I tend to have some on the crownboard from November until March/April. I found an American writing about insulation, from an area which probably has winters more like northern England or Scotland and he lists 5 identifiable benefits for top insulation. They don't have hive stands as high as ours so they use an upper entrance in case the lower is blocked by snow. He says - "First, the insulation traps a portion of the heat given off by the overwintering cluster, thereby preventing any frost or ice buildup that might occur without insulation. Similarly, the combination upper entrance/ventilation port allows the warm moist air to vent, virtually eliminating any condensation buildup on the underside of the inner cover. Third, the retained heat allows the cluster to expand thereby increasing its ability to access the stored food reserves. Colonies protected by top insulation are much less likely to cold starve during the depths of a long cold winter. Fourth, the upper entrance allows for easy outside access whenever the weather warms enough for a cleansing flight. And last of all, top insulation allows the colony to rear more brood in the cold of early Spring than would be possible were insulation not present. If possible allow the colony to benefit from the top insulation until average daytime temperatures reach the 55 to 60° (12-15 deg C) range." I think the most important for us in the UK is the increased ability to access stores in cold

weather and earlier brood rearing. I often over-winter nuclei and I think the insulation on top and possibly to either side in the form of an insulated dummy board is essential to them wintering well. It is the number of bees which is key to them keeping the cluster temperature up. Small colonies have fewer bees; a larger relative surface area means greater heat loss, later brood rearing and possibly not surviving until spring.

Continue to heft and check the entrances are clear of dead bees. Trim away any grass etc round the hives to enable any sun to dry out the wood, and from the front so any accumulating dead bees can be seen and monitored. Monitor the varroa drop, either by a dust with icing sugar for a more accurate and quicker assessment if the temp is above 8 degrees C, or put the inserts in for a week and count the drop if weather does not permit dusting. I like to keep the inserts out most of the time as the ventilation is considered beneficial. If the drop is high, it may be advisable to use oxalic acid trickle at the end of December or very early Jan, when the brood is at its lowest for it to be most effective, as it does not reach mites in capped brood. In our normally, mostly mild winters the colonies could have brood all winter thus reducing its effectiveness. Sussex University suggest going through the colony and removing or destroying any brood before the treatment. This would make it a very effective treatment, but is also rather disturbing to the colony and depends on finding a mild day in December. Oxalic acid can kill brood and it should only be used once in the lifetime of a bee. I have also read that it may kill off the beneficial bacteria and fungi which the bees use to increase their immunity to disease. Nothing is as simple as it first seems! Read the safety and dosage instructions carefully. Having got my mite numbers down in October/November I have not needed to trickle for the last 2 years.

I will finish on a couple of items of research published in November. First some researchers at Bristol University have found evidence in the form of beeswax in containers, that beekeeping is 9000 years old. The earliest evidence comes from Neolithic Turkey, then Greece, Romania and Serbia from about 7000 years ago. In the Balkans beekeeping was clearly a very important activity with much of the pottery containing traces of beeswax. The well known Egyptian paintings depicting beekeeping is a mere 4500 years old.

The other piece of research from North Carolina, USA, found that urban bees were under more pressure from pathogens (particularly *Nosema ceranae* and Black Queen Cell Virus) and had shorter lives than rural bees. This is possibly due to increased transmission of disease.

Continued P4



Continued from P3 Feral bees had lower disease burdens and greater immunity. Feral bees harboured an average of 4.9 disease agents compared with 5.5 in managed. They suggest that possible reasons may

be because urban areas are several degrees warmer, favouring the survival of *N. ceranae* spores, and a higher density of bees from different colonies sharing limited resources and spreading diseases.

Bees put to work lugging pesticides to flowers

Oleveia Solon in NewScientist 31 October 2015: 13
From our resident reader Gerrald Legg

They're not called worker bees for nothing. Bumblebees buzz from plant to plant collecting food, and plans are afoot to give them another task while they do it – carrying pesticides to where they are needed. Bee Vectoring Technologies (BVT) in Mississauga, Canada, has opened a commercial production plant this month in the hope that the tactic will lure farmers away from indiscriminate crop spraying.

The idea involves placing a tray of organic pesticide powder inside a commercially bred hive. The powder contains a substance to help it stick to bees' legs and a strain of *Clonostachys rosea* fungus that is harmless to these insects but attacks crop diseases and pests. "It's a perfectly natural fungus found very commonly throughout the world. We've just developed a way to grow and harvest it efficiently," says Michael Collinson, CEO of BVT.

The bumblebees walk through the powder as they leave the hive. When they land on flowers to gather nectar and pollen, they leave a dusting of pesticide to protect the plant and future fruit.

Many crops can be protected this way, including blueberries and bell peppers. BVT plans to provide its dispensing system to a number of companies that have developed biological controls for other pests such as fireblight, which affects apples and pears.

"Farmers usually spray the whole orchard and 99 per cent of it ends up in the wrong place," says Collinson. "We can deliver it locally and use 20 grams as opposed to 2 kilograms. It's much better for the environment."

David Passalium, an organic farmer near Toronto, has been using the system for five years on 8.5 acres of strawberries and raspberries. "We were losing a significant portion of our crop each year to Botrytis and

tarnished plant bugs," he says. Now those losses are negligible and profits have gone up by a quarter, he says. "I wouldn't even try to grow without it now."

The idea of using bees to carry pesticides isn't new, but BVT is one of the first to attempt to commercialise the approach.

"It's a good idea. It's better than spraying highly toxic chemicals over acres of land," says Don Steinkraus, an entomologist at the University of Arkansas in Fayetteville. "As long as it doesn't have a bad effect on the bees."

Jeremy Kerr, a biologist at the University of Ottawa in Canada, thinks it should only be used inside greenhouses, away from wild bees. If used outside, he says it could have unintended effects on non-target plants or other pollinators.

Another concern relates to BVT's use of commercially bred insects. "Domesticated bumblebees carry pathogens that can be transmitted into the wild," says Sydney Cameron of the University of Illinois at Urbana-Champaign. "That issue has not been resolved."

The company plans to work with other companies to deliver inorganic pesticides that have been deemed safe to bees by the US Environment Protection Agency. But the agency typically tests only on honeybees, using them as surrogates for all pollinators, despite differences between bee species.

"Honeybees and bumblebees differ in their response to pesticides in ways that can be hard to predict," says Dave Goulson at the University of Sussex in Brighton, UK. What's more, the EPA generally tests only to see if chemicals are acutely toxic, rather than looking at the effects of long-term exposure.

Collinson says the company is "very cautious" about the insects' well-being. "Our business is bees. We need these guys to fly for us."

His company now plans to add more biocontrols to its pesticide mix to create broad-spectrum crop protection.

More bits from Gerald - re last months New Scientist item

Flowers know how to get bees buzzing

New Scientist 24 October 2015, 16

So that's why bees are always busy. Some flowers produce caffeinated nectar, and bees that get hooked are more active – but also potentially less productive.

Margaret Couvillon at the University of Sussex, UK, studied whether bees given sugar water containing

caffeine at levels like those in nectar would come back for more. After 3 hours, the sugar water supply ran dry, but the bees kept returning in search of caffeine. "They were kind of desperate," Couvillon says.

The team found that caffeine warps other foraging behaviours: bees pumped up on it performed more enthusiastic waggle dances, encouraging more of the colony to head to the caffeinated nectar source

. This could lower honey production, as plants could produce less nectar but still manage to attract bees.

Apiary opportunity in Hove James el Ein.

Would any members be interested in having use of a very large garden in central Hove for bee hives.

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Divisional Diary 2015/16

Indoor meetings 7.15 for 7.30pm on the 3rd Wednesday of the month, (October to March) at St. Thomas's church hall, Lewes unless otherwise stated. Members are invited to arrive early and assist in putting out chairs. Admittance £1 which will include tea/coffee, cake/biscuits Non-members are welcome.

Programme

Indoor meetings

October 21st – Candle making– Celia Rudland

November 18th – Preparing honey for show– Mollie Bonard

December 16th – Dave Cushman and his website - Roger Patterson

January 20th – AGM – Using Nucs – David Rudland

February 17th – 8mm of Nothing– Bob Smith

March 16th – Blossom to Honey Jar– John Hendrie

Dates for your diary

October 29-31 National Honey Show, St Georges College, Weybridge

November 28 SBKA Annual convention

The Brighton and Lewes Division of the SBKA cannot accept any responsibility for loss, injury or damage sustained by persons in consequence of their participation in activities arranged.

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Contributions to the newsletter (max 900 words) can be sent preferably by email to the editor see Officer panel above for details Photos etc. for the website should be emailed to our webmaster, see panel above.

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