

Volume 11 - November 2018 Editor: Norman Dickinson BRIGHTON AND LEWES DIVISION OF THE SUSSEX BEEKEEPERS ASSOCIATION www.brightonlewesbeekeepers.co.uk

Forthcoming winter meeting Wednesday, 21st November @ 7.00pm

Our next winter meeting will be on the 21st November at 7.00pm where the subject will be Colony Nutrition. Speaker: Pam Hunter. Pam, who is a BBKA research trustee and sits on the SBKA committee, is very knowledgeable and has previously spoken at our winter meetings, which have been warmly received. All are welcome to attend.

Winter meeting held on 17th October - Report by Manek Dubash

With a nip in the air, the October meeting opened with announcements from Chairman Ian White. This was to be a practical session, focusing on frame-making, foundation wiring, microscopy - looking at wasps - and the practical application of oxalic acid as one method of varroa treatment.

A note of warning was given by Ian as Asian hornets have now been spotted at Dungeness in East Kent. Members were urged to be vigilant and Pat Clowser displayed laminated posters that members could take away for use by local shops - especially those selling honey.

Ian then presented Gerald Legg with the cake-making trophy - it was a bit delayed, he said, but better late than never. *The cake is probably stale by now. Ed.*

Before setting up the tables, A reminder was given of the Sussex Beekeepers Annual Convention sched-

uled to take place on 3rd November at the Uckfield Civic Centre. *Details of the event are on Page 2 of this newsletter. Ed* Members



were then encouraged to walk around and discover how to develop their beekeeping skills.

At the tables were:

Hilary Osman with the virtual hive, demonstrating pollen and cell identification together with all of the stages of brood that would be encountered by the beekeeper through the year.

Mary King was on the B&L honey-tasting table, where members could rank the honeys by colour, aroma, texture and flavour. Honeys from Ditchling, Ringmer, Lewes, Hassocks and beyond were up for tasting. Mary's own honey from Ditchling was darkest, and informally reckoned to be the richest and most distinctive. *Editors Note: Enter the hon-* ey at next years National Honey Show. See the 2018 Show review on Page 5.

Bob Curtis demonstrated frame making from flat packs and foundation, and encouraged members to view wasp heads through a microscope - the difference between the head of a queen wasp (vespula vulgaris) and a worker was clear.



Meanwhile, at the other end of the room, and under the eyes of potential new B&L members, Ian

White built at least two hive boxes using flatpacks and a collection of hammers, drills, screws and nails - and all without a classic "hammer meets thumb" moment.

Close by were Amanda Miller and Sue Taylor, talking to people about varroa control and demonstrating the finer points of oxalic acid sublimation - together with the precautions that need to be taken when using this technique.

With her customary verve, Heather McNiven shared her extensive experience of swarm control and colony splitting



with new members who were keen to understand the perhaps more tricky techniques of beekeeping.

The final table was occupied by Gerald Legg, showing his technique for foundation wiring using a home-made frame jig and heating elements. Maybe we

don't need to buy wired foundation after all...

Sussex Beekeepers Association Convention 2018

Sussex Beekeepers Association 2018 Annual Convention

The Annual Convention will take place this year on Saturday 3rd November commencing at 9am. The venue is once again The Ashdown Room, Uckfield Civic Centre, UCKFIELD, TN22 1AE.

Speakers confirmed so far are:-

Clive de Bryn – author of "Practical Beekeeping' – Keeping Healthy Bees

Christine Stevens - Honey Handling - From Hive to Jar

John Hendrie – Queen Rearing

Karin Alton – How to Improve your Green Spaces for Bees and other pollinators

Dr John Feltwell – Asian Hornet Update



The cost remains at £25 per person including a Buffet Lunch. For further information or to book, please send an email to info @ sbkaconvention.org.uk .

You may also book via Eventbrite please note that Eventbrite charge a booking fee of £1.79 for using this service.

Buzz Off submitted by Gerald Legg

Bees are not only remarkably smart, but are capable of emotions similar to our own it is claimed.

Bees have been shown to have unique personalities that enable them to solve problems, make choices and react in ways that look suspiciously like human emotions – behaviour that rivals in complexity that of some simple mammals.

Individual bees can follow intricate rules, distinguish between patterns in nature, sort sensory stimuli by shape and colour, and even have a rudimental ability for mathematics.

Bumblebees were to taught to roll small plastic balls into holes to win slurps of sugary water. Soon, the bees were devotedly operating the miniature vending machines, frequently finding shortcuts to the sweet prize -some even walked backwards, a behaviour that is not natural to them. In another experiment bees were trained to pull strings to release tasty rewards. Other studies have found that bees in the lab will only attempt a certain task if they have all the requisite information, implying a rudimentary form of metacognition.

Bees are also expert navigators. Like travelling salesmen, they need to move between a large number of flower parches in the most efficient route possible. It has been found that not only do bees remember where they had previously been, but also flew shorter, straighter paths as time went on. This demonstrates that they are constantly learning from the environment and innovating, rather than simply mechanically repeating themselves.

More surprisingly has been the finding that the inner lives of bees are governed by complex feelings – mental states that are in some ways similar to human emotions like discouragement and contentment. Sugar water was given to some bees but not others before they were set fee to forage. Those that received the syrup were more likely o seek out unknown sources of food. Further tests confirmed the bees were not simply feeling more adventurous thanks to a sugar high. Instead, the unexpected reward appeared to trigger a hit of the neurotransmitter dopamine, which – as I does in humans – left the bees in a more positive state of mind. Those that supped on sugar were also braver, venturing out sooner after scientists simulated a predator attack.

Further studies to see if bees have feelings included vigorously shaking bees to mimic a predatory attack which made them 'more pessimistic' and less likely to risk trying novel nectars, whose odours they did not recognise.

Emotions are likely evolved to help organisms make better decisions. An animal that could not feel something like fear when confronted with danger, or go-getter enthusiasm when food is plentiful, would have poor long-term prospects for survival.

The findings suggest that bees are at the forefront of insect cognition. Even more remarkable, the feats they have pulled off are normally associated with the largest and most recently evolved part of the human brain, the neocortex, which the minuscule bee brain lacks. How insects solve problems we one thought needed our own 'higher' centres to solve is a mystery. It is clear that when it comes to brains there is clearly more than one way to do it. Although lacking a neocortex insects can process information in bundles of nerve cells in other parts of their body.

From an article in NewScientist, 9th June 2018

Amanda advises

This October has been incredibly warm and bees have been very busy nearly every day, with a strong smell of Ivy honey emanating from the hives, the boxes are heavy and I was able to reduce the planned syrup feed as they seem to have gathered quite a bit themselves.

There is not much to do in the apiary now. Mouse guards can be fitted as soon as it cools down; anti woodpecker netting on; straps on; probably this weekend 27th/ 28th October as frosts are forecast and temperatures will decline to normal. All feeding should be long finished by now as they will not be able to reduce the moisture of syrup in cool weather. They are supposed to go into a cluster at outside temperatures below 14°C, but mine have been busy flying on sunny mornings of 6-7° C in low wind. Check the entrances regularly that dead bees are not blocking the mouse guard holes or low entrances. I hope beginners have remembered to remove queen excluders so the bees and above all the queen, can move freely round to access stores. In mid October I monitored the mite levels in all the colonies and while one apiary had very low numbers ; 3 -5 after icing sugar dusting, and my home apiary mostly quite good 3 - 49 after dusting, the divisional apiary near Burgess Hill most of which had had a full Apiguard treatment in September was dropping more mites. A repeat test 5 days later revealed double the mite drop, from 44 to 274 in just 15 minutes! So it looks like the varroa bomb has struck again same time as last year. I had thought with the warm weather and from the huge strength of all my colonies there may be fewer or later collapses elsewhere from which mine have robbed and picked up varroa, but not the case. Even if you don't get an invasion, the colonies have been so busy and seem much larger than normal for the time of year with more brood so the varroa will have been busy too and their numbers will be rising so do keep an eye on them if you want your colonies to stay healthy over winter. In my experience any colony dropping over 300 at this time, after dusting, are in danger of dying over winter.

When I did all my health/queen/brood inspections in late September, I mentioned in the last notes that I was disappointed to find in what had been a very productive colony, only a small patch of sealed brood. A few days later I checked again and this time found the old queen and mainly sealed brood. So, in spite of having sufficient honey to last the winter I gave them 2lb syrup in the hope of kick starting her into laying again. The next day, which was an amazing 20°C and sunny, I saw loads of pollen going in, as was the case with all the other colonies. Two weeks later in, October, they still only had one frame of brood and few eggs. Compare this with a colony with two queens (old and supersedure daughter) on 10 seams of which 7 are brood! I predict this latter colony will be a good production one next year, and the first one will not be much good next year!

I often find a colony which has produced a lot of honey and been huge in the summer, often needs a bit more nursing and may be less healthy or smaller subsequently than new colonies and nuc's on fresh comb, with new or rested queens. They have had lots of brood leading to dark comb, lots of hard work, mites breeding prodigiously etc. In early autumn they are exhausted and the summer workers all dying off, but it is too late to change comb then. I have left these with 3 boxes and in a couple of cases they had moved up into the top two boxes as the population shrank in late September and I have been able to remove the bottom empty box in October. All I can do is keep the mites as low as possible and earmark them for a forced move up unto clean super comb in early spring and hope they make it through the winter. Fingers crossed, mine look good so far; I only found one colony with two deformed Wing Virus bees, very little sacbrood and no sign of Chalkbrood; a warm autumn has probably helped keep these lurgies at bay.



Bees have been doing their business for tens of millions of years and we have not changed them much (so far - but see article on Frankenbees! At Page 4, Ed). So if I am not sure what is going on but they seem healthy etc, I step back and let them get on with it and nine times out of ten they sort themselves out. On a very warm 9th October one of my Apidea did something stupid though, which cost them their colony. I noticed a small swarm on the wing and watched them land under another colony on the other side of the garden. I assumed they had gone back to where they had come from as all my queens are clipped, however, when I rescued the queen from under the floor and put her in the colony they started to ball her. So I went through the colony, found their resident queen and rescued the balled queen. After a bit of investigation decided they had come from an Apidea which had eggs, larvae and sealed brood and no queen but no queen cells either. Next morning I returned the queen there and they started to ball her. I rescued her a second time and found one back leg was paralysed. But there was little future for them if they would not accept her being injured, as they could not replace her with no drones around. So I have moved it near another colony to join when I throw them out. I wonder why they swarmed so late in the year, how she managed to fly that far, why they balled her when they had been queenless for over 24 hours? With no swarm cells, or drone it is unlikely to be a reproductive swarm, possibly if her leg was damaged earlier, or because they only had a couple of frames of food it was a swarm of desperation, or maybe the unseasonable warmth. I had heard of a huge swarm the previous week, so maybe I should be thankful I have only lost a tiny Apidea and not a production colony as someone else obviously has!

Research: there is some promising looking research on fungal extracts in America, which seem to reduce virus levels in honeybees, either by improving the bee immune system or fighting the viruses. There will however be several more years of work before this is available as a treatment.

Also another team found Bumblebees fed on sunflower pollen had lower incidences of the pathogen Crithidia bombi when fed both in the lab and in the field (as a monoculture). Honey bees fed on sunflower pollen had reduced Nosema ceranae, although overall mortality was the same as those not fed pollen and they died at four times the rate as those fed on Buckwheat pollen. So although there may be anti-bacterial and anti-fungal properties in sunflower pollen it comes at a cost. Any pesticide spray effect on sunflowers was eliminated as the result was seen on organically and conventionally grown sunflowers. However we all know that monocultures are bad for our bees and a balanced diet is better. I shall probably still grow one or two sunflowers again next year.

ur bees have had to contend with many problems in recent years, introduced pests, diseases and parasites are some and the rest caused principally by changes in farming methods leading to massive applications of toxic pesticides which disrupt their navigation, senses, breeding etc, loss of forage as a result of monocultures, loss of meadows, hedgerows, pruning and cutting what is left too often and at inappropriate times. In parts of China this has resulted in total loss of all pollinators. Commercial beekeeping methods particularly in USA is also at fault resulting in stress and inbreeding.

So it is alarming to discover another threat in the form of genetically modified bees. In 2006 a lab in Germany determined the honeybee genome. In 2014 this lab in the Heinrich Heine University created the first GM bee. Shortly after, the University of Tokyo also created a GM bee. While both these labs deny any link with people like Bayer or Monsanto, claiming their work is to understand bee health better, it is a blueprint producing a hardier pesticide resistant bee, just the sort of technology these multinationals like to be involved in; create and patent a plant or insect resistant to their pesticides, then they have everyone over a barrel and make an eye-watering profit in the process. This is what is worrying beekeepers, in particular a German commercial beekeeper Haefeker, and in 2016 Apimondia voted unanimously to adopt the Apimondia

Open Source Breeding Material Licence for Apis mellifera and Apis cerana to try to keep bee breeding freely available to Beekeepers.

One only has to look at recent disasters when animals and plants are modified, whether by GM or hybridisation and then released into an unsuspecting environment, for example Africanised bees in North America, several disastrous GM plants (cotton, Flavr Savr tomato etc) to wonder why they persist in these potentially irreversible nightmares. The GM queens will be able to breed with local bees, messing up the genetics of indigenous bee populations and once released - or accidentally escaped (what are you suggesting? Ed) - there will be no closing this Pandora's box of horrors. Who knows what effect a 'bulletproof bee' will have on our other hard-pressed pollinators.

Apparently the US dept of Defence in a project called Insect Allies is also investigating using insects to carry Modified plant virus genes to plants. This would turn the insects into bio weapons complain French and German university academics. Ironic really when it is the Germans who are producing a GM bee.

Read all about it at

https://www.theguardian.com/environment/2018/oct/16 /frankenbees-genetically-modified-pollinators-dangerof-building-a-better-bee

his stor

Tr

ch

drow

becc tem

clin

yiel tha

3 2

ser

A little something for vegans, sent in by Pat Clowser

two more matches at Aylestone but left became increasingly generous towards him, donating household goods, food orde up with him. He told the club he hoped to run seven marathons to raise money for

nardo's, the children's charity, as well as contacting Carroll's former wife, Lucy Lakin, and her mother, Linda Eccles, and persuading them to go to the police. The £500 resurfaced but he was eventually charged over the theft of £2,000 from Mrs Eccles. Mrs Lakin, 3I, that his of complete actually d the life of

Why avocados are off menu for vegans

Ben Webster Environment Editor

Vegans can add two more items to the ong list of foods they should avoid: ds and avocados.

An Oxford professor of medical ethics has challenged strict vegans to consider the harm done to billions of bees that are transported thousands of miles to pollinate crops. Vegans are already expected to avoid animal products that vegetarians happily con-Dominic Wilkinson, 45, said that 31 billion bees were transported to Californian almond farms each year and research showed that the journeys affected their health and shortened their lives. He said that vegans who were motivated by a desire to minimise animal suffering should consider the impact of these journeys. "While the amount of suffering experienced by an

individual bee is probably small, this would be magnified by the very large number of insects potentially affected." he wrote in an article for the website The Conversation. "A vegan who chooses to eat almonds or avocados is not doing what evolution and the not doing what would most reduce animal suffering."

Professor Wilkinson told The Times.

however, that despite considering him-self a vegan he would eat almonds and avocados. He already eats honey because he is "agnostic about bees' capacity to suffer" He said: "We all have to make decisions about where we draw the line given what we know about the impact of the choices we make.

"I draw the line in one place that's right for me but other people will draw it in different places. We need to be reasonably pragmatic as vegans. Those who avoid honey may well decide they should also avoid Californian almonds and avoca-dos. That would be a consistent position but it would also be reasonable for them to say. "I'm already making

to say, 'I'm already making very substantial sacrifices.' The Vegan Society said honey was unsuitable for vegans but that it was acceptable for them to eat avocados and almoste. A successful and

nd almonds. A spokeswoman said: "We are aware that many forms of farming involve indirect harm to animals but it is unfortunately not possible or practicable to avoid the use of animals in most farming at this time.

"However, we do not consider that just because it is not possible to avoid 100 per cent of animal exploitation that we should not bother at all."

87th National Honey Show - Report by Norman Dickinson

The 87th National Honey Show took place between 25th October and 27th October 2018 at Sandown Park racecourse near Esher in Surrey and was well supported with an almost record number of 2022 entries from 261 exhibitors, an increase of over 8.5% in entries and 10% of exhibitors. Four Brighton and Lewes members entered 22 classes between them, and we are pleased to announce that a total of 9 awards were achieved, plus the award of 2 cups. The award placings for B&L members are presented at the end of this report.

The Show was officially opened on Thursday afternoon by Mrs Joan Beavington, Master of the Worshipful Company of Wax Chandlers together with the Rev Francis Capener, the National Honey Show outgoing President. The various cup awards were presented by Bill Turnbull, BBC and Classic FM presenter on Saturday afternoon, who also closed the Show on behalf of the Show organisers. Recognition must be given to The Worshipful Company of Wax Chandlers, who have supported the Show for many years and which without their patronage the Show would not be what it is today. The National Honey Show AGM and the Annual Meeting of the National Council were held on Thursday afternoon, where the Officers of the show were re-elected. The Reverend Francis Capener has now completed his 3-year term as President and Margaret Davis was elected unopposed as the new President.

Throughout all three days of the Show a full schedule of lectures and workshops was available, most of which were booked in advance of the Show. There were thirteen lectures over the 3 days held in the Gold Cup Suite covering all aspects of beekeeping, that is except the second lecture on Thursday entitled "Glass Packaging - The Gold Standard" presented by Chris Sorsby, Commercial Manager for Glass Technology Services (GTS) Ltd. and sponsored by Freeman and Hardy. This lecture was probably the only lecture NOT to feature bees or honey, instead it gave a fascinating insight into the manufacture of glass products, quality control, food contact, small to large production and a little history lesson to. One interesting fact to emerge was that if a glass item were to break (not as a result of dropping it) then if all of the glass pieces, including the smallest fragments, were sent to the manufacturers or a company such as GTS, it could be determined exactly what the cause was and where in the production process through to distribution the initial fault occurred prior to breakage.

There were also nine BeeCraft Research and Beginners held in the Solario Suite to supplement the main lectures. As per last year here were a total of 31 workshops covering all practical aspects of beekeeping and products of the hive. The lectures will be made available on the National Honey Show YouTube Channel at

https://www.youtube.com/channel/UCiOtIebcpY0Zqq ma0H5wLYQ, which you will need to subscribe to. Videos from previous years lectures are also available and are free to view. A slide show covering the Show is also available at

http://www.honeyshow.co.uk/slideshow2018-1.php# A record number of trade stands occupied the Trade Hall which expanded into the Champaign Bar this year, and as is usual at these events discounted sales were available for either collection at the show or home delivery. In addition to the trade stands, the various bee related organisations and associations were represented offering help and advice.

The Jockey Club Food Hall dispensed hot food, snacks and hot & cold drinks all day. It would appear that notice was taken of the high-ish prices charged last year as Cod and Chips with mushy peas and a drink were £2.00 less this time.

The judging of the Show entries took considerably longer this year due to the high number of entries and only opened about 2:30pm and after I went to my first workshop on candle making. One can be overwhelmed by the sheer number of entries and the diversity of colour in the honeys on display. Similarly, the wax entries attracted a large entry with an excellent standard of preparation. One display entry, whilst not the Class winner, had a very complicated crowning wax top which must have taken hours to make and have included this photo in the newsletter.

This year I volunteered to do stewarding duties at the Show, so Friday afternoon I was responsible for checking that all visitors entering the Show Hall had the correct badge or wrist-band. Saturday morning was more interesting in that I was on the Main Reception Desk from 8:30 to 9:30, then I was on duty inside the Show Hall where I was able to answer a whole range of queries and questions. It is amazing how much knowledge one retains deep in the cerebral passages which has been forgotten about, only to be retrieved in a moment. I can most certainly recommend doing a stint of stewarding at the Show in the future (and you get free entry on the day plus £5.00 for refreshment).

A number of SBKA Divisional members managed to get awards and a special mention must go to cup winners Bob Curtis (Mrs Mathews Cup), Sue Taylor

87th National Honey Show - Report by Norman Dickinson

(PJ Cup), Rebecca Champion (Lady Denman Cup), Eric Slade (Crawley Cup) and Lesley Francis (Berry Cup). Congratulation to all.

Full list of awards for Brighton & Lewes members as follows: -

<u>Class</u>	Place	<u>Name</u>	Class Description
97	3rd	Bob Curtis	Colour Print, Close-up or Macro
98	HC	Bob Curtis	Black and White Print
128	2 nd	Sue Taylor	Lemon Honey Cake (Gift)
242	VHC	Sue Taylor	Two Jars Medium Honey (Sussex Members)
244	1 st	Bob Curtis	Two Jars Naturally Crystallised Honey (Sussex Members)
247	2 nd	Bob Curtis	One Frame of Honey Suitable for Extracting (Sussex Members)
250	1 st	Sue Taylor	Six 28g (1oz blocks) Beeswax (Sussex Members)
251	1 st	Sue Taylor	One Bottle Mead or Metheglin (Sussex Members)
251	3 rd	Hilary Osman	One Bottle Mead or Metheglin (Sussex Members)

VHC – Very Highly Commended

HC - Highly Commended

The Full Result by Class List can be found at <u>http://www.honeyshow.co.uk/files/2018/results-nhs-26-10-2018.pdf</u> with the Cup Awards List at <u>http://www.honeyshow.co.uk/files/2018/Cup-Award-List-2018.pdf</u> Here's looking forward to the 88th National Honey Show to be held at Sandown Park on 24th, 25th and 26th October 2019. Further information will be available of the National Honey Show website <u>http://www.honeyshow.co.uk/</u>, so watch that space. Information will also be included in the newsletter as it becomes available.





Above: Sue & Bob receive their trophies from Bill Turnbull

Left: Extraordinary display of beeswax as a basket of fruit and vegetables

Photo Corner - More from the National Honey Show



Left: Show judges at work

Right: Opening Ceremony





Margaret Davis receiving the Chain of Office from outgoing President Reverend Francis Capener



3rd place in Class 16 - Decorative Display



Left: Empty Show Hall

Right: Highly Commended Beeswax Sculpture

B&L Divisional Diary 2018/19

Indoor meetings: Meetings are held on the 3rd Wednesday of the month, October to March at Cliffe church hall, Lewes, unless otherwise stated. Members are invited at 7.00pm to assist with setting out chairs etc ready for a 7.15pm start. Non-members are always welcome.

Winter Programme

19th September 2018 - Work of Bees Abroad. Speaker: Geoffrey Redwood.

17th October 2018 - Winter Work & how to manage your hives over winter and prepare for Spring.

21st November 2018 - Colony Nutrition. Speaker: Pam Hunter.

16th January 2019 - B&L 2019 AGM with the Honey and Mead Show. Honey Judge: Harold Cloutt.

20th February 2019 - Topic and Speaker to be advised.

20th March 2019 - Small Scale Queen Rearing in my Backyard. Speaker: Mike Cullen.

For your diary

2nd Sept @ Newick, annual BBQ with Heather McNiven. 30th Sept - Westdean Green Community Event, help required, contact Judith at newapiary@hotmail.com 25th October to 27th October The 2018 National Honey Show Sandown Park, Esher.

3rd November - SBKA Annual Convention in Uckfield. 18th May 2019 - SBKA Annual Bee Market in Heathfield.

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 by the Division or Association

Officers of the Division

President Lionel Reuben Chairman Ian White E: ianda.pinehill@yahoo.co.uk Vice-Chairman/Treasurer/Membership Secretary Pat Clowser, 5 Wivelsfield Road, Saltdean, BN2 8FP T: 01273 700404 E: patricia.blbees@hotmail.com Secretary Hilary Osman, Holly Tree Cottage, Norlington Lane, Ringmer, BN8 5SH T: 01273 813045 E:secretary@brightonlewesbeekeepers.co.uk **Meetings Secretary** Mary King Swarm coordination Ian White

Newsletter editor Norman Dickinson, 34 Abergavenny Rd, Lewes, BN7 1SN T: 07792 296422 E: editor.blbees@outlook.com <u>Librarian</u> Vacant **Out-Apiary Managers** Amanda Millar: - "Grassroots" Heather McNiven: - "Knowlands Farm" **County Representatives** Bob Curtis, Ian White **Education coordinator** Amanda Millar National Honey Show County Representative Norman Dickinson **Committee Members** Lionel Reuben, Ian White, Pat Clowser, Hillary Osman, Norman Dickinson, Sue Taylor, Gerald Legg, Heather McNiven, Mary King, Dominic Zambito, Manek Dubash

Contributions to your newsletter

Gerald Legg, E: gerald@chelifer.com

Webmaster

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

Regional Bee Inspector - Sandra Grey, Mobile: 07775 119430, email: sandra.grey@apha.gsi.gov.uk Seasonal Bee Inspector - Diane Steele, Mobile: 07775 119452, email: diane.steele@apha.gsi.gov.uk Seasonal Bee Inspector - Kay Wreford, Mobile: 07775 119483, email: kay.wreford@apha.gsi.gov.uk

grassroots grants The co-operative membership & Community Fund