SEVENOAKS AND TUNBRIDGE WELLS BEEKEEPERS BRANCH NEWSLETTER

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The Secrets of Pollen

This year we have an indoor meeting in April. It will be a talk on pollen and nutrition by Bob Smith. Pollen is clearly important for the development of the colony but how do we know if the bees have enough, whether it is of sufficient quality and if supplements are really necessary? You can find out on Tuesday April 19 at 7.30pm in Weald Memorial Hall.

Strong Colonies at Barrwood

After completing the first inspection of the season we found two colonies had died out. Although there was activity early in the month, these were probably the last of the winter bees. At some stage the queen had died and, by the end of the month, so had most of the winter workers. With the overnight cluster dwindling in size there comes a point where it can no longer retain enough heat and the remainder of the colony dies. With no other indication of possible disease it would have been safe to use the stores left behind to help boost other colonies although this did not seem necessary. With such a prolonged period of warm dry weather the colonies had built up strength more quickly than normal with large brood nests and plenty of stores of nectar and pollen.

I am always puzzled at this time of the year as to where the bees are foraging. In my own garden they were working the heathers. There's also mahonia, winter honeysuckle, winter broom and the crocuses follow the snowdrops. I guess with such glorious weather the bees at Barrwood have been able to forage further afield than the surrounding wood and green fields.

With a number of new beekeepers attending it was nice to see such strong thriving colonies. The original aim was to establish if we had a queen-right colony and if there were sufficient stores. We also showed how a colony could congest itself by building 'pollen walls' and by moving these frames outwards we were able to give the queen more laying space.

The queen excluders that were cleaned and sterilised at the beginning of the month were put to use, with the supers that had spent winter underneath the brood box returned to their 'super' position.

I was concerned that with such large colonies the queens would have started to lay in these supers but this was not the case. For once the colonies were doing what the books say they should do: use up the stores in the super over winter and return to it only when the upper brood box is full. Two colonies had a significant amount of drone brood already, an indication that we may see early swarms this year.

Special thanks to Liz for enabling me to divide the group into two for the inspections.

At our next meeting, in preparation for what may be an early need for swarm control, we will have a run through with empty boxes and give a demonstration of various methods. I'm looking forward to moving the polynuc into the WBC hive and beginning the comb change preparations with the other colonies.

Cliff Hayward, Barrwood Apiary Manager

New Residents at Hilbert Road

Meetings at Hilbert Road have continued throughout March; the weather has been very kind if a little chilly.

Many hands made light work of the many jobs we had planned in order to tidy up the apiary and prepare for the coming season. I'm sure the tea and cake had nothing to do with it!

Sadly, we have experienced some winter losses which are suspected to be from failing or damaged queens late in the season. A new colony has taken up residence, having been transferred from a very strong nucleus that was rapidly running out of space. It appears to have settled in nicely.

Planned sessions in April will look at apiary hygiene, planning the apiary, including siting of hives, a review of equipment and sorting out the water source. Hopefully, we will be able to carry out a full inspection and find and mark our queens.

Regular attendees have formed a WhatsApp group so that messages can be passed quickly between us: very useful if we have to cancel due to poor weather conditions. Anyone who wishes to be added to this group may contact me by email: sushelagh@hotmail.com

Sue Knights, Hilbert Road Apiary Manager

Wanted – Bee Colonies

I would like to buy two new bee colonies for my existing National hives. If you have bees for sale please contact me. I am based in central Tunbridge Wells. Jill Kendrick: jill@makewaymusic.com

The Vital Role of the Drone

Now the weather is picking up and our bees are starting to fly, it certainly feels like spring is here. This year the season has been particularly significant, as we are now able to meet together, although some regular members were isolating and unable to attend our March meeting. Our speaker, Andrew Gibb, gave a talk on drone psychology. He has been a beekeeper for many years. He has co-authored a number of text books, and written for Bee Craft magazine. He has also been an examiner for BBKA. His subject of drones was an interesting choice. Queens and workers have been widely studied, but apart from breeding activity drone behaviour is still a bit of a mystery.

Andrew opened his talk with a summary of the established facts about drones. They are physically slightly larger than workers, with stronger flight muscles and larger eyes. They develop from unfertilised eggs, which are usually around the sides and lower edges of brood frames. Drones typically account for about one percent of the population of the colony and do not survive the winter. They do not have a stinger as this part of the body contains the reproductive organs. Drones take 24 days to emerge from egg to adult, which is longer than the queen or workers. It then takes about two weeks for them to mature sufficiently to be able to mate. Once a drone has successfully mated with a queen, the reproductive organs are damaged to a point where the drone can no longer survive.

Drones have no pollen baskets on their legs, and they do not produce wax so, apart from mating, what do drones contribute to the colony? Well, there is some evidence to show that a colony tends to be more settled when the balance in numbers of drones and workers is right. This prompted a discussion on the practice of drone culling as a method of varroa control. Andrew suggested that maybe this would be an interesting experiment to undertake in your own apiary. It also seems that drones have a role to play in the temperature control within the hive.

Much of the discussion centred on the drone congregation area (DCA). Very few beekeepers have ever witnessed this behaviour. Research suggests that drones use the same location every year, but how do they know where to go when they survive for only one season, and how do they know to meet up with unrelated drones? Some experiments have been done using queen pheromones to try to artificially establish a DCA, but the exact behaviour is still unclear. DCAs are often in

sheltered open areas, such as natural clearings at the edge of woodlands and, in areas with a reasonable stocking density of hives, may be only a few hundred metres from the home hive of the virgin queen.

The conclusion of the talk was that there is still a lot we don't know about our drones. What we can be sure of is that a healthy colony relies on healthy drones as much as healthy queens and workers. Don't forget to keep an eye on them; your drones will be starting to develop in preparation for the swarming season, so maybe don't be too quick to cull them just yet.

Liz Birchenough

Back to Life

Last September, when I inspected my hive, I discovered that although there were worker bees there were no drones, no eggs, no larvae and no brood. The bees were not happy. I concluded that the colony was queenless and that it would perish over the winter. The bees had sufficient stores to last in the unlikely event that they should survive. Imagine my surprise when, in the sunny days of March, I noticed pollen being taken into the hive. This is always a sign that all is well within. I did a quick inspection and could not quite believe my eyes when I discovered sealed brood. I can only conclude that the colony was superseding last September. The virgin queen must have mated with the last of the season's drones and had not then come on to lay.

This colony was a swarm that arrived at my bait hive last spring. All is now well and I know that I have a new queen for the coming season.

Simon Staffurth

April in the Apiary

The seasons change rapidly and watching my bees working the snowdrops and crocuses last month, I saw how much wind and daytime temperature affected the foragers. I could see the bees loaded with pollen arriving at differing times of day, with the change in colours of pollen indicating their source. Dorothy Hodges' book: The Pollen Loads of the Honey Bee has a lovely plate showing the plant source by way of colour. IBRA and Northern Bee Books have produced a reprint of Pollen Grain Drawings by Dorothy Hodges.

Twenty-eight years ago a current member of this branch had a super filled with honey in March/April. I extracted the pollen, made a slide and identified the honey, which was purely from Salix caprea, known as goat or pussy willow. It is an excellent source of both nectar and pollen, I have several trees still flowering.

Many colonies will be found to be strong while others are just surviving. The latter may need help to conserve heat overnight by closing ventilated floors and covering the brood nest with a blanket.

Now, when the temperature allows, swift examination of the colony during the warmest part of the day will tell you when to expect swarming, especially if there is drone brood in view. Drones take 24 days from egg to emergence and about two weeks to reach sexual maturity. Remember, however that drones may already be around from other colonies. They are said to fly up to ten miles to a drone assembly point where the virgin queens fly to mate with several drones.

This is the time to purchase additional equipment such as nucleus hives, frames and foundation, to cope with swarms and increase. It will be too late when your swarm has just emerged and is hanging near your hive. It will not hang around but will be gone, possibly to lodge behind tile hanging, in a chimney or roof of a house causing the householder the worry and expense of having the bees poisoned or removed. I lost 10 colonies at Pembury and another beekeeper lost four hives, due to secondary poisoning of a feral colony in a dormer roof. Our losses amounted to more than £5,000.

Swarm Prevention

There are books galore on swarm prevention methods. In a nutshell, you need to understand the principles only: the age of the queen, the amount of sperm in the spermatheca from her initial copulations and the production of the swarm-inhibiting pheromone which is tied to her egg-laying ability. If there is a nectar flow and insufficient brood cells to fill with eggs then the bees will begin swarm preparation. Snelgrove's system is classic, Wally Shaw's book comes highly recommended.

The workers themselves set the swarming instinct as it is the natural reproduction of the colony. You will always see queen cups at this time of year: leave them where they are, mark the frame top with an X so when you inspect, you can look at those specific frames. Directly you see eggs or larvae you can take action.

To prevent the queen running short of space for egg-laying, insert a drawn comb between the comb of stores adjacent to the brood nest, not in the middle of the brood nest as that may isolate the queen and encourage swarming. Add supers before they are required. You may find the workers then fill only the centre combs but you can easily rearrange the combs

down adjacent to each other. Just remember the bees need far more space to store and convert the nectar because overnight they reduce the excess water.

One more thing this month: the bees need far more water to thin out honey and to regulate heat within the hive. An old frying pan with stones covered in moss is ideal but needs topping up daily if you have several colonies. Alternatively use a shallow baking tray. The bees will drown in an open container.

Peter Hutton

Bees Behind the Beams

In mid-March Paddy Green and I rescued a colony of bees from a listed building at Biddenden. Bees were entering the side of the house through old beams and we had no idea what we would find when we started prising off the concrete fascia with a jemmy that would have made a burglar proud. We took with us an empty hive with empty frames and a bag of large elastic bands plus a large carving knife.

When the concrete was removed with the help of builders, who had been provided with bee suits by Paddy, we saw that someone had attempted to block the bees with polystyrene foam. I cut out sections of wax with honey and brood and we placed one section at a time in open frames. We put three elastic bands around each frame to hold the sections in place before dropping them into a hive. A successful mission and a satisfied homeowner.

Vic Webb

Diary Dates

Swarm prevention practice with empty boxes.

Sunday April 3 at 11am at Hilbert Road Apiary

Saturday April 9 at 2pm at Barrwood Apiary

A talk on pollen and nutrition by Bob Smith:

Tuesday April 19 at 7.30pm at Weald Memorial Hall

Queen marking and how to find a queen:

Saturday April 23 at 2pm at Barrwood Apiary

Go to our website for all the latest beekeeping news: http://www.sevenoaksbeekeepers.org.uk/

Send pictures or items for the newsletter to marystaffurth@yahoo.com