

### In the Apiary in July Nigel Salmon.



- 1 Main flow enough supers on hives?
- 2 Reduce entrances on nuclei/weak hives
- 3 Monitor varroa population/mite drop
- 4 **Open mesh floors**

Writing these notes at the end of the first week of June, I have been surprised at how early everything is flowering this year. I passed a lime tree that was actually flowering, nearly a month early! Blackberry is also starting to flower, along with beans and a late-sown field of rape. I have noticed over the years how the so-called 'June gap' just doesn't seem to happen any more, and we are more likely to have a late July gap.

From about the second week of June to the middle of July, limes, blackberry, sweet chestnut, summer flowering (spring-sown) oilseed rape, white clover and a huge variety of cultivated and wild flowers will bloom. If the weather is hot, and there has been enough rainfall in the preceding weeks/months, you can expect a good, steady flow. Bees will be fully occupied, with a constant stream of foragers coming and going from the hives, and they can be handled with the minimum of fuss. However, more often than not, the weather is changeable and the bees become frustrated by being cooped up in the hive unable to forage freely, with a consequent falling off in their good behaviour.

Advice this month is to make sure they have enough supers for the incoming nectar. As we get towards the middle of July, I would refrain from adding any more as the nectar flow will usually slow and finally stop altogether, and you don't want a number of half-full supers to extract, but be prepared to be flexible.

Once the flows have all but stopped, the bees will turn their attention to defending their hoard, and for up to a week, can be unapproachable. If there is no good reason for disturbing them, then I would leave them alone to get on with ripening and sealing the honey. With little income, bees will now be on the look-out for free sweets, so it will pay you to make sure that all hive parts fit together well without any gaps through which bees can gain entry – it is amazing how quickly robbing bees can clear a hive out of all its honey. By the same token, ensure that bees gain no access to cleared (or clearing) supers, even for only a few minutes, by covering all supers until they can be removed to a bee-tight building. The excitement caused by allowing bees access to honey at this time of the year will make sure you don't do it again!

Any hive that is low on numbers of bees, and all nuclei, should have their entrances reduced so that they can keep robbing bees (and wasps) out. If you become aware of robbing in progress (a lot of activity around a couple of hives when all others are quiet), then try to ascertain who is the robber and who is doing the robbing, close up the hive being robbed (with ventilation – leave the varroa tray out, with just the mesh in place, for instance) trapping as many of the robbers inside as possible, then temporarily move the hive to another apiary or site at least 3 miles away. The bees doing the robbing will treat this hive as their own. Now go back to the original apiary and temporarily reduce ALL the entrances – they can, if desired, be opened again after a few days. The removed hive can be returned after a couple of weeks or so, by which time the robbing bees should have forgotten their old site.

Monitor the varroa situation <u>very</u> carefully this month – if your uncapped drone brood indicates that the mite population may be getting out of hand (it is the percentage of infected drone cells rather than the number of mites that you need to ascertain), or occasional bees are seen falling from the hive entrances with deformed wings, then you must treat as soon as possible. If there is still honey on the hive, then check the literature to see whether your preferred treatment has a withdrawal period for honey.

At the end of July/beginning of August, some colonies may slow or stop their queen from laying, so if you check a colony and find only sealed brood and no queen, eggs or larvae, do not jump to the conclusion that they are queenless. Nearly all of the queenless hives that I have examined have shown bees clustering thickly over the brood combs, such that it is difficult to see the comb underneath (bees do not normally cluster in large numbers in the broodnest unless preparing to swarm). If the bees look and behave normally, then they are probably fine.

For a few years I ran my hives on open-mesh floors, only replacing the collecting trays when treating with Apiguard. Leaving the collecting tray out means that all the hive debris falls clear of the hive, along with any live mites (up to 20% mites drop off or are knocked or brushed off the bees - they can't return if they fall through an open mesh floor). Leaving the collecting trays out also reduces the incidence of wax moth to almost nil. I did not detect any detrimental effect on colony behaviour or temper – if anything they were slightly better behaved. In hot weather they don't cluster all up the hive front and nectar is ripened more quickly; top ventilation is not required at any time of year. Unfortunately, they have no effect on the swarming urge of the bees! However, I have gone back to leaving the collecting trays in all year, cleaning them at least once a week. I nearly lost my bees during last winter's cold spell, and the weather just doesn't seem warm enough during the greater part of the summer to warrant leaving the bees unprotected below.

If you keep your bees in an out-apiary then rearing your own queens is a very good idea. You don't need to do grafting – de-queen a colony that you can afford to produce less honey, destroy any queen cells they make themselves, then add a frame of eggs/very young larvae from your best colony. They will make queen cells on this frame, and once they are sealed you can carefully cut them out and put them in Apideas with a small number of workers. Once the queens have emerged, mated and are laying they can be introduced to small nuclei and left to build up slowly. A judgement can then be made on their relative docility (don't use smoke), and any that fall short of your expectations can be culled. The others can be used to re-queen your hives in the autumn, and any left over can be kept in nuclei over the winter in case of losses; any surplus nuclei can be sold in the spring.

If, like me, you only have a couple of hives in your back garden then you will probably feel it is safer to get your queens from a reliable bee breeder to guarantee docility. I have just read a paper that describes a protein which is responsible for queen differentiation in the honeybee. A 57-kDa protein in royal jelly, previously designated '**royalactin**', induces the differentiation of honeybee larvae into queens. Royalactin increases body size and ovary development and shortens developmental time in honeybees. It achieves this by increasing the activity of a mitogen-activated protein kinase, which was involved in the decreased developmental time, and increased the titre of juvenile hormone, an essential hormone for ovary development. Royalactin also activated p70 S6 kinase, which was responsible for the increase of body size.

#### Association Notes.

#### Vale & Downland - Mike Taylor

As I write in mid-June we seem to be in a second round of swarming and also honey extracting. With Winter Rape now over, our bees may be having to search harder for nectar. Spring Rape and Field Beans are available in some areas and white clover is now secreting since the recent rain. Brambles are probably the best nectar source.

I was pleased to hear that our beginners have now received their nuclei, but from a different supplier, having been let down by our previous one.

Our May apiary meeting at Andrew Hearn's apiary in Gainsfield was well attended by members of V&DBKA and also Newbury Association chairman Rob Nickless. Andrew has experienced quite a few problems with his bees swarming and was uncertain what to expect when the hives were opened. Lilian asked Nigel Salmon to assist Andrew during opening of hives and provide a summary of findings. The first 3 hives opened resulted in two being suspected as being queenless and the hive that was queenright had only 4-5 frames of brood. Andrew had also suspected that the queens had perhaps recently escaped into supers so all frames in the supers were checked and bees shaken into the relevant brood boxes. It was also decided that a test frame was taken from the queenright hive to put in the two hives which were suspect queenless. A further nucleus hive housing a small cast was also found to be queenless when checked. Andrew's problem was also compounded by the fact that he had ordered 2 mated queens for restocking and they were expected to arrive on the following Tuesday. It was hoped that he could introduce them to the suspect two queenless stocks or the small queenless cast subject to the test frames proving queenlessness. After a labour intensive afternoon all members retired to the very comfortable conservatory for tea, sandwiches and numerous cakes. Our many thanks to Mrs Hearn and Andrew for their kind welcome and generous provision of refreshments. (I have to thank John Valentine for this report.)

The next apiary meeting is on Sunday 24 July at John Barley's out-apiary at West Lockinge Farm at 2.30pm. We will see how John has fared so far this year.

#### Newbury - Rob Nickless.

Many thanks to the dozen or so people who braved the rain on Sunday 12th June for our apiary meeting in Speen. Vince and Diane were very welcoming hosts but it was too wet to open any bees so an interesting discussion (with, of course, a cup of tea and a slice of cake) was held in the barn instead. It was great to see a couple of beginners there – do please come along to meetings, it's the best way to learn about your new hobby.

# July Apiary meeting. Please note a change of meeting date to **SUNDAY 10<sup>th</sup> JULY at 2.30pm.**

Our Association Apiary is, at the time of writing, very close to being operational and we will hold our July meeting there on Sunday 10th July. We have been fortunate enough to secure a site for the apiary on the Newbury Showground site and, at the last committee meeting, Paul Jarvis was proposed as the Apiary Manager. As you know, the showground site is secure so, for the purposes of our meeting there, please meet promptly, at 2.30pm (no access will be given after 2.45pm) and we will travel to the site from there. There is vehicular access.

One of the purposes of the Association Apiary is to demonstrate the various types of hive available so, whether you're a beginner or an old hand, this will be a good opportunity to discuss the pros and cons of the various hives. I'm sure a lively debate will ensue.....

Finally, just a reminder that members are asked to provide cakes and sandwiches, in turn, for our apiary meetings. Please do bring a contribution when you can.

#### Combining a Cast with another Colony. Mike Taylor

I sometimes find that I have collected a cast during the swarming season, but nobody wants it. One solution is to combine the cast with another colony. The following method works very well.

1. Remove the roof, crown board and supers from the selected occupied hive, leaving the queen excluder in place.

2. Place an empty super on the queen excluder.

3. Remove the cloth covering the skep/box containing the cast, and sprinkle icing sugar over the bees inside it.

4. Shake all the cast bees into the empty super.

5. Replace the crown board for a minute to prevent the cast from escaping.

6. Remove the crown board again and gently smoke around the inside of the super to encourage the bees to move down through the queen excluder.

7. When most of the bees have disappeared through the queen excluder, search for the queen. She may be trying to squeeze through the queen excluder, or could be in a tussle with workers from the host hive. Remove/squash her.

8. Remove the empty super and replace the occupied supers, crown board and roof.

Job done!

#### Garden Notes Aurie

Lime tree blossom is just coming on now; score of little dangling tassels of flowers are on the point of opening out. No one other tree or plant produces so much nectar in such abundance. F.N. Howes confidently tells us that 40 lime trees produce an increase in weight of hives of 4lb daily! In any case he rates lime as the second most important source for bees after white clover. Perhaps it is even the first most important now since farmers don't grow clover as fodder so much nowadays?

In the north side of Newbury limes are around everywhere as street trees and in Northcroft Park. In Donnington Grove Golf Course three parallel rows of trees run all the length of one side and many more dotted around. They are tall, stately, long lived trees. Their only major disadvantage is a production some years of heaps of honeydew. This is caused by a sooty mould fungus which messes up the leaves and falls in a sticky mess on street and cars. But when there is plenty of nectar the bees don't seem to bother bringing in the honeydew. Overcast days and humid weather are good for nectar flow generally. Light rain isn't a problem because the flowers face downwards. So the weather now is good for lime honey, lovely flavour, light amber colour with a greenish tinge. But when it's mixed with honeydew it turns a dark green colour. Honey dew production is worst when the weather is hot and dry, and that's when bees go for it because the nectar dries up.

I don't tune into Chelsea Flower Show often. I prefer gardens not too manicured, that have wild parts for nature. But someone told me this year there were far more bee and bird friendly exhibits, a good thing! And the 'Best in Show' award was full of yarrow, fennel, cow parsley and alliums and also a display of flowering veg. from an allotment! Veg. in question were 3 foot tall parsnips, each an 'explosion' of intricate stems and sub-stems topped with umbrella heads of luminous yellow-green! This was a great hit with the judges! So if you want to get to see this exploding parsnip, leave a few roots in the ground in winter and they will do a dramatic late spring flowering! And the flowers are interesting to a lot of insects, though no big source of nectar. Carrying on the theme, turnips get pulled for eating end of the first year but if left for a second year they flower in great profusion and the flowers (brassicas) are extremely popular with bees! A field of them is a 'beekeepers' paradise', says my book of flowers for bees. Leeks too make bee friendly allium blossoms. Better not carry this craze too far or we'll have a shortage of veg. for Xmas dinner! Happy Gardening!

## Hot from the Press – Newbury Mike Oliver

Stands at shows: two years ago a couple of our members took a trestle table, a load of honey jars and an observation hive to the village fete at Whitchurch (near Pangbourne): they sold an enormous pile of honey, had a grand time and were able to push one of our key objectives, which is to "spread the word" about beekeeping. We've just received an invitation to go back to Whitchurch fete with a bees-and-honey stand on Saturday the 3<sup>rd</sup> September. That's around the date that school holidays finish and a couple of weeks short of the Newbury Show, so should be convenient. You don't need aeons of experience – we've just had an observation hive taken to Chieveley show by a member who first looked inside any hive less than 18 months ago – please let me know (by phone or email) if you'd like to take this on.

# Are your bees starving? Sue Ayers. National Bee Unit Advice Note dated 2<sup>nd</sup> June 2011

This year has seen exceptional weather with some regions having the driest spring for a century whilst others such as Scotland receiving far more precipitation than average. Especially in the south and east of England early spring saw good nectar flows but mid May saw the start of the 'June gap'. It has been particularly pronounced with bees consuming stores at a rapid rate. If drought conditions continue nectar production will be affected.

It is important that colony store levels are checked particularly if a spring crop such as oil seed rape has been taken. At this time an average colony should have at least 4-5 combs with honey/sugar stores, i.e. 9 kg. or 20lb. If not and there is still no significant nectar flow feed them sugar syrup. In extreme cases, if the bees are starving on the comb, spray them with a thin sugar syrup solution and fill an empty comb with sugar syrup. This can be done by pouring the syrup into the cells slowly using a honey jar filled with sugar syrup and closed with a lid having 3 mm holes on opposite sides, or using a squeezy bottle, e.g. a cleansed washing up fluid bottle. When filled, place the comb adjacent to the bees.

The effects of insufficient stores are at worst death of the colony and at best a reduction of bee production. Bees require a supply of honey or sugar, pollen and water to produce brood food. If any of these ingredients are in short supply it causes a reduction or stop of the brood nest and will impact colony productivity and well being through the remaining season and possibly impact on overwintering.

To make sugar syrup use white granulated sugar. With modern production methods it makes no difference if it was sourced from cane or beet. Do not use brown or raw sugars as they contain impurities. The syrup should be made up in the proportion of 1 kg. of granulated sugar to 630 ml. of water or 2 lb. sugar to 1 pt. of water. There is no need to boil the mixture but using hot water helps. Stir regularly to remove the air bubbles and dissolve all the crystals. When fully dissolved the mixture is clear and a very pale straw colour. It can be fed to colonies by using rapid or contact feeders.

Syrup used for emergency feeding at this time can be made using twice the quantity of water, commonly known as 'thin syrup'. This helps the bees as they do not have to collect as much water for brood food production.

### **ADVERTISEMENTS**

# NEWBURY

## Sunday 10 July at 2.30pm

Association Apiary at Newbury Showground.

# VALE & DOWNLAND

<u>Sunday 26 June at 2.30pm – Apiary meeting</u> with Norman and Liz Maconochie at Sutton Courtenay. (Details in June News)

Sunday 24 July at 2.30pm- Apiary meeting With John Barley at West Lockinge.

<u>ADVERTISEMENTS</u> - Advertisements, for beekeeping items only, can be accepted from association members. They should be restricted to 5 lines and there will be no charge. They should be sent to the editor before the 19th of the month.

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# **APIARY SITE**

Michael McCallman lives in Hampstead Norreys and would like a beekeeper to place hives in his garden. He does not want to become a beekeeper himself but likes the idea of encouraging bees, so if anyone is interested please call him to make arrangements.