

# North Bucks Bee Keepers' Association

## Newsletter March 2013

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### Calendar at-a-glance

|       |                       |
|-------|-----------------------|
| March | Improvers group (TBA) |
|-------|-----------------------|

### News Articles

#### ***County Seminar – event report***

The 17<sup>th</sup> annual county seminar was a great success. Organised largely by John Catton, ex-chairman of Bucks County BKA, and hosted by county chairman Ken Neil, it was held in Wendover last Saturday. Despite terrible parking everyone arrived promptly and took their seats in the large hall. Lectures were “beekeeper vs bee”, “drone physiology” and “bees and the national trust”. All lectures were followed by a lively round of questions and were set around a delicious ploughman's lunch. A fascinating quiz was run by Andrew Beer, and the raffle raised much money for Bees for Development.

Very well done to all who helped organise.

#### ***Social Evening – event report***

The Shoulder Of Mutton pub in Calverton hosted around 20 NBBKA members last Monday, we we met for a drink and a catch up. As one member put it, it was nice to get to know people a little better, as the conversation was not just about bees and beekeeping. We hope to hold more such evenings, probably out of the main season.

## Regular Columns

### ***March Apiary Notes from Andrew Beer***

Flag down ! They're off ! It may be difficult to believe that on the day you receive this newsletter but down in brood chambers all strong healthy bees will be breeding intensively – and indeed have been for some time. In March the number of dying bees may still exceed the number of bees emerging. This is indeed a fraught time for colonies; a colony simply will not survive if it cannot replace dying bees with young bees at a sufficient rate sufficiently early, disease or no disease. All beekeepers can do is to provide such support as he or she can.

The advice I offered in January's Newsletter about woodpeckers, necessary feeding and periodic checks continues to apply. However, I highlight feeding. March, at least here in North Bucks, is the most severe month for starvation and the great risk is for colonies fast expanding which simply run out of food. Don't rely on visual inspections, when, on a warm flying day, the bees are bringing in masses of pollen. Check by hefting. If you don't, be not surprised to find a heap of dead, starved bees a few days later. All colonies and hives must have a minimum of 10lbs of good stores at all times. If light, don't hesitate, FEED !

And what food? After the beginning of March and when the bees have started flying freely, you can feed syrup. You must use a bucket feeder, but the feed must be directly accessible to the bees. The conventional view is that the bucket should be inverted over the coverboard feed hole. A trouble with that is that clustering bees may not reach it, and starve. (Suggestion – place the bucket on top of frames directly over the cluster in an eke, coverboard above it). Mix: 1lb of sugar to a pint of water is the conventional view, but I use 2lbs to a pint to reduce the risk of fermentation. More about feeding later. I now want to set out the steps you should be ready to take.

**First Spring Inspection.** The day for this has nothing to do with the calendar, but depends wholly on the weather. Indeed, in a cold, late Spring, this could be as late as April, but it is usually in March. You need to wait until your bees have had several days of flying freely, and strong colonies are bringing in much pollen. The extent of each inspection then turns on the condition of each colony.

**Strong Colonies.** Strange as it may seem, it is best at first spring inspection to limit this to a casual check that all is well. The risk of disturbing bees too greatly at this time is that they may, by balling, kill their queen. Don't attempt a full inspection of the brood - at most go no further than checking an outer brood frame to see if it contains good, healthy worker brood. If this step is likely to excite the colony, then it is best to hold back until the next inspection. However, take any opportunity to remove manky, empty, unoccupied combs and replace them with frames of foundation (but you will need to feed to help the colony draw out the combs).

**Weak Colonies.** It is perhaps worth remembering that a weak colony in Spring can become the strongest later on. (In 2010 I had a small nuc with not much more than 500 bees. In each of 2010 and 2011 the ensuing colony produced, with the same queen, about 100lbs; in 2012 at least 60lbs. In 2013 I intend to use the good lady for breeding). A weak colony may be perfectly healthy but its problem is shortage of bees. Think of it this way: a colony of 50,000 bees in late May will, in March, normally be down to 7,000 or so bees, and numbers may still be falling. However, with the impact of varroa (and associated viruses) the decline may be even steeper – too steep and the colony dies out, less so and the head count could be a thousand, perhaps less. Never discard a colony with just a few bees if it is apparently queenright and healthy at this stage, but it will need help. To understand this better, at any inspection, any sealed brood will not be forager bees for about 20 days at the earliest, by which time many (if not all) of the old bees in the colony will be dead.

**Weak and Dead Colonies at First Inspection.** Apart from the numbers problem (referred to above) you need to go into each colony specifically to find out why it is weak. The reason is likely to be one of the following:

1. No brood. Almost certainly, there will be no queen. If in doubt, wait until second inspection. If you are satisfied there is no queen and bees are otherwise apparently healthy, take the frames, at midday on a fine, warm day, to a strong colony and bang the bees off them and the other hive parts at the entrance of the strong hive. The newly-arrived bees will be accepted without demur.
2. Solid Batches of drone brood, little or no worker brood. The queen has become a drone breeder. Find her and kill her. Why? She may kill off the queen to whom you intend to unite the colony. Then unite bees to a strong stock by the newspaper method, or, if there are just a few bees, use the method above to transfer the bees.
3. Drone Brood spread haphazardly over several combs in worker cells. No queen, laying workers. Unification as above may well result in the incumbent queen getting killed. This is because the laying workers give off pheromones which are attractive to non-workers who may be encouraged – if given a choice – to kill the queen. To overcome the potential problem choose a warm flying day and at midday place the laying worker hive about 15 feet from its original site and with its entrance turned through 90 degrees. Put a temporary brood box with, say, two combs, but no bees from the original hive, on the original site, to catch flying non-laying worker bees. Then unite the bees in the temporary brood box by the newspaper method to a strong, healthy colony. The laying workers, assuming they find their new home, may then revert to being “ordinary” worker bees. Whatever happens, they won’t be a nuisance.
4. Dead Colonies. Sadly, you may find dead colonies. Always establish the reason. Or seek help. Or take a sample for further examination. To help you identify the problem if you find:

- Dead bees, head down in cells, no food: Assume starvation. Next year, ensure colonies each go into winter with 40lbs of stores.
- Bees as above, but considerable quantities of food elsewhere in hive, even on the same frames outside the cluster: Assume isolation starvation. Next year try fondant feeding from 1st December as mentioned in previous newsletters.
- Piles of dead bees on floor, blocking entrance: Possibly entrance blocked and bees unable to emerge, or disease or pest. If the former, check with a stick periodically in winter that the entrances are clear.
- Mish-mash of faeces, crushed comb, dead bees, nesting material: Assume mice or occasionally rats. Make a note to improve defences for Winter 2013-14
- Large holes, indeed, any holes in hive walls, splinters of wood: Assume woodpeckers – pretty obvious if you find one dead inside! NB protective measures failed. Make a note to improve defences in winter 2013/2014
- Tops of frames and hive entrance heavily spattered with spots of faeces: Assume dysentery or nosema (or both). Dysentery may be caused by inappropriate or unripe stores. Nosema is probably endemic and you have had a bad case.
- Few or no bees, wax cappings strewn over hive floor, cells in combs “ransacked”. Lots of activity at entrance by furtive bees, harassed defender bees running in all directions – basically chaos! Assume that the colony has been or is being robbed out. If robbing is at an early stage and essentially unharmed the best course is to take it to another apiary (or perhaps your mother-in-law’s garden) at least three miles away until it regains strength. NB Keeping all colonies, large, small or indifferent on 1 inch entrances between 1st August and 1st April reduces the risk of robbing.
- Anything else? Ask an expert!

If you are ever in doubt about the health of a colony or the reason its death, take advice. It is as well to remember that a weak but queenright healthy colony may be used to “put right” another weak but healthy one, even a strong healthy colony without a queen. For example, if, on your first inspection you find an apparently healthy colony with no brood and really no queen, put the weak queenright colony above the strong queenless colony and unite by the newspaper method.

Let’s go back to that weak colony we mentioned earlier with an apparently good queen and only a handful of bees and has not been taken care of in some other way. Almost certainly it will die out if left on its own because the death rate will be greater than the

rate at which new Spring-born bees emerge. If it is really a numbers, and not a disease, problem, consider this: when Spring is well under way go to your best hive and take a maximum of 2 frames of emerging brood and adhering bees and box in a new hive which is put on the site of the "tiddler" colony – BUT DO NOT TAKE THE QUEEN from your best hive. Find her and put her temporarily with the frame she is on in a separate box before returning her to her home. Then put the tiddler colony broodbox over the new hive and introduce by the newspaper method. Stuff the entrance of the new hive with grass for 36 hours or so, leave with feed. Later, condense to one broodbox. Further "gifts" of brood frames later in the year will help things along. By taking frames from your strong hive, as above, you are also operating a swarm control measure!

Some commercial beekeepers attempt to equalise the strength of colonies in Spring by putting a strong colony on the site of a weak one and the weak one on the site of the strong one. And so on. The overall intention is to facilitate the management of all colonies as one unit and defer swarm plans. I have never done this, as it is bound to cause some distress to the bees, and perhaps to neighbours. A guiding principle of my beekeeping is that bees, beekeepers and neighbours should never be agitated ! Remember neighbours don't wear bee suits and in my experience may strip down to sun bathe, and usually do. I stick, always, to the methods of the "experts" and then vary them to minimise drama! Well, that is my goal. Each of my apiaries is close to either housing or public rights of way so that is a particular reason for my caution.

**Second Inspection.** Hopefully, we shall be getting several days of good, warm flying weather in late March, allowing full inspection of colonies. Traditionally, you don't do a full check until the flowering currant is flowering and you can work outside in shirtsleeves, which you could generally reckon to be in the first or second week of April. However, traditionalists did not have to contend with oil-seed rape, which can be in flower in late March, a vital crop to most of us in North Bucks, for which our colonies must be prepared. In an early season, too, the swarming season could be upon us in early April. In 2011, my first swarm call was on April 7th, so it may be necessary to make swarm prevention plans as soon as late March.

All I can advise is that you don't go fully into your hives until we have had several days of warm Spring weather and bees are heavily engaged outside hives. Even on this second inspection, you don't have to turn through every comb – you just do enough to get an overview of the colony and deal with immediate needs. For example, if you have a 2012 nucleus which is growing into a fine colony with lots of space and good, solid brood on nice, fresh frames, why disturb it unnecessarily? But do start any necessary brood frame replacement (see below). Whenever you go through a hive at and after this inspection you should ask yourself a number of questions (which I take from Ted Hooper's book "Guide to Bees and Honey").

1. Has the colony sufficient room?
2. Is the queen present and laying the expected number of eggs?

- 3a. (Early season) Is the colony building up in size as fast as other colonies in the apiary?
- 3b. (Mid season) Are there any queen cells present in the colony?
4. Are there any signs of disease or abnormality?
5. Has the colony sufficient stores to last until the next inspection?

I would make the following comments:

**Sufficient room.** When bees occupy, wholly or partially, 8 out of 10 or 11 frames in a brood or super, it is time to add, as necessary, additional "space" for the queen to lay and/or for the bees to occupy. As I work on Commercial brood chambers and national supers, I have never had the need to add a second brood chamber, but if you are lucky enough to have a prolific queen, it may well be that the standard National Brood chamber (or other "small hive" chamber) is inadequate for the queen and you will need to provide her with extra space. The decision can be difficult. For example, do you add a second brood box (which could result in a smaller crop) or do you put on a super complete with frames for brood and then run the bees on what is known as "One and a half". Experienced beekeepers have many different views and I do not enter the argument! As perhaps a temporary measure, you could syphon off a couple of frames of emerging brood and adhering bees (BUT NOT THE QUEEN) and put in a separate box which you unite by the "newspaper method" to a weaker stock, as earlier described. Alternatively, you could put the removed combs into an additional brood box above, QE and supers for the brood to hatch out remembering to use a stick wide enough to allow emerging young drones to escape. Note: When brood is separated in this way lack of pheromones scent may lead to bees raising queen cells. Any gaps in the existing brood box you then fill with frames of foundation. A small point on supering: installation of a queen excluder between the brood box and the super may create a "no-go" area in the super. Consider leaving the bees without a QE until they have come up into the super. The danger, of course, is that the queen may start laying in the super, but if you get in to the habit of examining colonies every 7 days, you minimise the risk. If it does happen, instead of trying to find the queen, drive all the bees down into the brood chamber with a good blast of smoke – it usually works. Then add the QE and check super 5 or so days later for eggs. If none, there is no queen in the super.

**Colony build-up.** By the time the flowering currant is flowering, a strong colony ought to have large patches of brood on at least 4 frames. Use that as a test for your colonies. If less, don't worry too much, providing the bees are healthy. Some bees are slow starters!

**Queen cells.** The earliest reported swarm in England occurred, I believe, on 28th March, so it is likely that the colony concerned was building queen cells on about 19th March. I am going to assume that this experience will not be repeated before you get

April's newsletter when I intend to write about swarm prevention and control!

**Disease or Abnormality.** If you notice anything apart from what I have mentioned earlier, speak to an experienced beekeeper.

**Sufficient Stores and Stimulative Feeding.** This must be considered from two angles. Feeding against starvation is covered above. Stimulative feeding to enhance the colony was not. For those of you for whom oil-seed rape is a major crop, the additional feed you give may result in the bees making earlier swarm plans – a problem I am happy to live with. The purpose is to get the foragers up to strength so as to maximise the oil-seed rape crop.

**Brood Frames Replacement.** We are now advised by the NBU and others to replace all brood frames within a 2-year cycle. As far as I am aware no one has set out a procedure for doing this. This is important. Wrongly carried out brood will get chilled, good stores will be wasted and combs returning to base will have great wads of dead brood and food. In this state, recycling of wax becomes extremely messy and less productive, and unless done immediately, frames will become targets for robber bees, wasps and wax moths. So, here is a plan:

| PERIOD   | STEP  | REASON   |
|--|---|--|
| Second Spring inspection.                                  | Remove unoccupied food combs requiring replacement in 2013, de-cap and put in New Chamber (i.e. a broodbox or eke). Add QE above original broodbox, New Chamber goes on top.                          | You want to get redundant food combs away before Spring flow. You must not disturb the cluster unnecessarily at this time.           |
| Colony ready for supering.                                 | Remove remaining food combs for replacement, de-cap and add to New Chamber. <b>Don't take the queen!</b><br><br>Replace QE. Add super(s). Add coverboard, having reduced feed holes to one bee space. | You want to get all redundant feed combs away from broodchamber. The "bee space" encourages bees to "rob clean" frames more quickly. |
| Bees working supers and IT IS WARM and there is good flow. | Remove all broodframes with brood which require replacement. <b>Leave queen in the brood box.</b> Redundant frames are added to New Chamber. Put stick between New Chamber and                        | Delay will ensure brood does not get chilled. If necessary, additional nurse bees will enter New Chamber to care                     |

|   |                                       |             |
|---|---------------------------------------|-------------|
|   | coverboard to allow drones to escape. | for brood.  |
| New Chamber clear of brood and food.  | Remove.                               | To recycle. |
| <p>Very important: Whenever you have a gap in the broodbox you fill it with clean frames, with foundation. In future, date frames with year, e.g. 2013, to help identification.</p> |                                       |             |

And finally. Do, do, try to get all that extra equipment out in the apiary where it will be required, by the end of March; you can then operate swarm control measures as soon as needed. In early April? We shall see.

Best regards

Andrew Beer

(01525 240235, if you need to call).