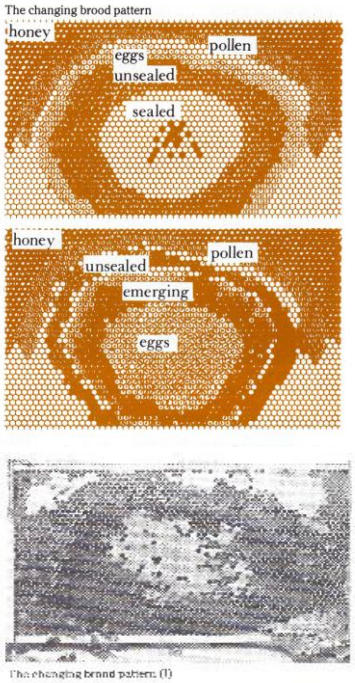
A Guide to Inspections from end of March until the end of June.

What happens in the hive from January - March

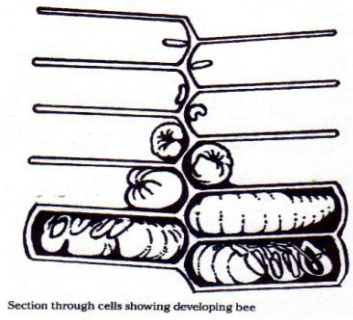
The bees are beginning to stir now the days are getting longer. The worker bees will be feeding the queen a little honey and she will respond by laying a few eggs at the centre of the winter cluster. The bees closest to the eggs will vibrate their wing muscles to keep the eggs at 35degC to enable them to hatch into larva. The only food available is their stores of honey and pollen in the hive. These larvae are fed with royal jelly pollen and honey. The honey has to be diluted with condensation collected from inside the hive as the larva cannot digest undiluted honey. If the weather is warm enough you may see the bees bringing in pollen from aconites, snowdrops and hazel. Fresh pollen is always better than stored pollen and seeing it being brought into the hive is a sign of a healthy colony. From now until the end of March the winter bees will gradually die and be carried out of the hive but will be replaced by new bees from this early brood rearing. The winter population of 8000 bees will gradually die out and be replaced by this early brood rearing. By the time of the first inspection in early April all the bees will be young.

What you should be seeing on the combs during inspections

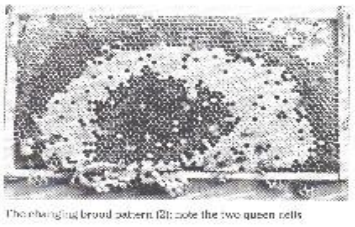


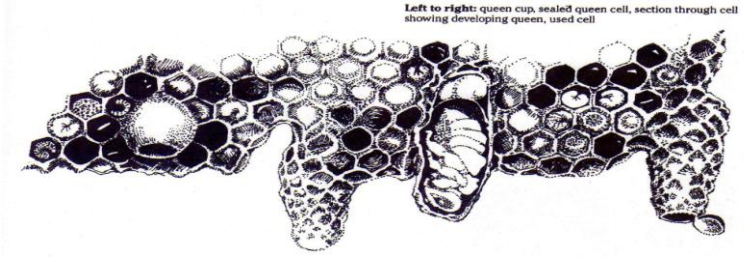
April … Inspections will now be every seven days, weather permitting. The weather should be getting warmer and the blossoms appearing. The odd drone will be seen and the population should be increasing dramatically. A good brood pattern will be in the ratio of 1:2:4; that is eggs/larva/sealed brood. If you see a circle of sealed brood in the centre of the comb these will be surrounded with larva and these will be surrounded with eggs. The pattern will change when the sealed brood hatches it will be replaced with eggs. The larva will then be sealed brood and the eggs larva. And so the pattern goes on. Supers will need to be put on the hive now.

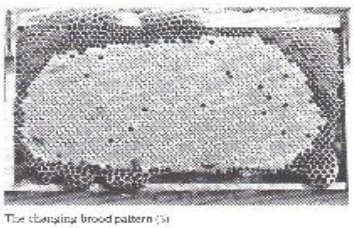
The changing brood pattern (1)


Section through cells showing developing bee

May … With good weather a flow of nectar and pollen coming in the queen will be reaching her peak laying rate and there should be brood filling the brood chamber. Add more supers if the bees are crowded in them - give them space. Watch out for signs of swarming. If there are queen cups with eggs the colony wants to swarm. At this stage you may squash these to delay swarming. You can delay swarming but eventually you will have to do swarm management to keep your bees together. For artificial swarming an additional hive will be necessary. For a method of swarm control see below.


The changing brood pattern (2): note the two queen cells


Left to right: queen cup, sealed queen cell, section through cell showing developing queen, used cell


The changing brood pattern (3)

June … Unswarmed colonies will have lots of bees and the queen's laying will slacken. If you have oil seed rape honey in the supers now is the time to take it off or it will crystallise in the comb. You can take a crop of honey now but be aware that the bees need a lot of food and June can be a funny month for a nectar supply. Continue swarm inspections.

The illustrations seen on this page are from the publication 'Bees at the bottom of the Garden' by Alan Campion illustrations by Gay Hodgson. An excellent inexpensive non technical book on how to keep bees.

A Method of Swarm Control

(With thanks to David Cushman)

When queen cells are raised in a colony under the swarming impulse, the actions of the beekeeper will rarely discourage swarming completely. This method was devised in an attempt to fool the bees into thinking that they have already swarmed. Whilst it duplicates some of the situations of swarming, I doubt that the bees are actually fooled, but merely respond to their changed circumstances.

The principle behind any swarm management system is to separate the brood from the queen. Also a "true" swarm has an old queen, a 20,000 or so workforce of bees of all ages and no comb.

We can create a set of situations that mimic the natural system quite closely. If you wish to try this... You will require extra equipment (I am assuming National Hives and UK conditions.)

Stand, Floor, Brood Chamber, and a full complement of brood frames fitted with foundation, Crown board (inner cover) and Roof (outer cover). A manipulation cloth or another crown board are also useful.

In the following explanation I will refer to right and left. There is no significance in this, you should adopt whatever is convenient to you... Providing that you are consistent you will achieve the desired result. I make no reference to the use of smoke... You should use it as and when you judge it necessary.

First place your spare stand 4 or 5 feet to the right of the hive to be "artificially Swarmed" Remove the roof of the "parent" hive and place upside down on the ground between the hive and the stand that has just been positioned.

Insert your hive tool into the joint immediately above the queen excluder to break the propolis seal and transfer the supers, no matter how many are already in place, complete with crown board into the upturned roof thus trapping all the bees that were in the supers (this keeps them out of our way).

Remove the queen excluder and place out of the way for use later.

Place the spare crown board on the parent brood box (to calm the bees) then transfer the floor, brood box and crown board as one unit from the original site to the "New" stand.

Put the spare floor on the now vacant stand that is still on the original site, oriented with the entrance in the same direction as the original... Place the spare brood box with the frames of foundation on this floor and remove the centre frame leaving a gap. (all the flying bees that are out foraging will automatically return to this entrance). If you have a manipulation cloth or further crown board use it to cover the top of this newly placed box.

Now we must turn our attention to the parent brood box... Remove the crown board and then run through the box examining each comb until you find the queen (often easier said than done!). Temporarily cover the box with the crown board. Transfer the frame of bees that the queen is on into the gap between the frames of foundation on the original site (you should destroy any queencells that exist on this frame), put the queen excluder on this box and place the original supers on the queen excluder. If they are very heavy, consider adding another super. Returning to the box with the frames of brood remove the crown board, close up the frames and insert the last frame, (the one with foundation that came out of the gap), to one side then replace the crown board.

It now remains only to put the original roof back on the original site and our spare roof on our "New" queenless hive.

Let us take stock of what we have done. We have two colonies that can be described as "swarm" and "parent". The one on the original site has an old queen, an abundance of bees and almost no brood. This is very similar to the circumstances that a swarm is faced with. It also has stores of nectar and honey and the small amount of brood forms a focus for the bees activities.

Our parent has no laying queen, brood of all ages, queen cells that are about to "hatch" and a recently depleted number of bees. This is rather like the state of a colony immediately after a swarm has issued.

Our two hives are both going to be very busy for the next several weeks, the swarm has to draw much foundation for the impatient queen to lay in. The flying force of bees will decrease as the older bees die (it will be three weeks before there are fresh bees emerging).

Our parent colony will reduce the number of queen cells to that which its smaller number of bees can properly support, (usually two), and much of the sealed brood will be emerging giving an increase in the population of adult bees.

But we cunning beekeepers have a trick up our sleeve!... If after a week we swap the parent hive from the right side of the main one to a similar position, but on the left of it, then our returning foragers from the small hive will come across the hive on the original site first and enter there instead (this balances the numbers).

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