



# Changing Brood Combs

## Practical Fact-Sheet

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**Please note:** This series of MBKA Fact Sheets are intended to accompany practical sessions and demonstrations at members' apiaries during the season.

Of course, there is no "right way" to keep bees and most objectives can be achieved in several different ways.

The advice presented in these notes is therefore selective, representing the method or methods used commonly and generally accepted as "best practice".

They should be regarded as guidance notes. It is expected that revisions will be frequent in the early phase of their production!

Until recently, the general advice to beekeepers has been to replace 3 or 4 brood frames each year, something which is not always easy to achieve. More recent experience with the "Shook Swarm" technique has demonstrated the value of replacing all of the brood frames in one go :

- colonies recover rapidly due to specific feeding
- reduces likelihood of health problems, esp. EFB and chalkbrood
- can inhibit swarming
- can be used, with slight modifications, to control varroa

There are two basic approaches to accomplishing a complete comb-change

- Artificial or shook swarm
- The Bailey Comb Change method, or variations on that

1. Artificial Swarm : a colony that shows evidence of swarm preparations may be artificially swarmed on to a box of foundation frames, with the old queen. Syrup feeding results in the combs being drawn rapidly. The original brood box is retained to raise a new queen and the 2 boxes are later united with the new queen and new frames; the old frames are discarded.
2. Shook Swarm : locate the queen (who MUST be in lay) and keep safe. Shake all of the bees off the old frames onto new ones in a clean brood box, on a clean floor. Replace the queen and feed strongly with at least a gallon of heavy sugar syrup. Discard the old frames. (This method is preferred to the artificial swarm and the Bailey comb-change in that there is little opportunity for pests and diseases to transfer from old to new boxes)
3. Bailey Comb Change : a method best applied in early spring during colony build-up. Not suitable for very deep brood frames such as jumbo Langstroth, Commercial, 14x12, etc.

Method : locate the queen and place her, on the frame she is on, in the centre of a clean, empty brood box. Mark the frame (eg drawing pin). Fill the rest of the box with foundation frames. Remove any old combs without brood and centre the remaining brood between 2 dummy boards. Put the new brood box on the old one, with a queen excluder between them. Add a crown board and feeder filled with syrup.

Once the bees have drawn combs adjacent to the "starter" and eggs are seen in new comb, remove the old, marked frame to the bottom box, ensuring the queen is not on it! Close up the frames and add one more new one to fill the top box. Continue feeding until all brood frames are drawn. The old brood frames can be removed as brood emerges over the following 3 weeks; the whole box can then be taken away.

Notes:

1. the feeding is most important, even if a flow is in progress. Expect to supply a colony with at least 5 kg of sugar (as strong syrup).
2. If possible, provide an additional (or sole) entrance above the old combs, giving bees direct access to the new frames.
3. Clean, drawn combs may be used in place of foundation. This requires some pre-planning with brood frames placed above the QX during a good flow. The drawn and filled frames may be extracted and stored for use next season.