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User Manual for Queen Rearing kit. – QC-KE10

The complete Kit comprises:

- ✓ Plastic Comb Box- 1 Pc
- ✓ Brown Cell Cups-120 Pc
- ✓ Cell Bar Cups- 10 Pc
- ✓ Cell Bar Blocks- 10 Pc
- ✓ Roller Queen Cages-10 Pc
- ✓ Instruction Manual- 1Pc

Plastic Comb Box



Fig.-i



Cell Bar Blocks

Fig-ii



Cell Bar Cup

Fig-iii



Brown Cell Cup

Fig-iv



Roller Queen Cages

Fig-v

Instructions for use:

- I. Take a good, relatively old, drawn brood frame and cut out an oblong in the top center the same size as the Comb Box. Secure to the underside of the top bar with small screws or tacks.
- II. Fill the food chamber of the Comb Box with candy or 'Ragus'.
- III. Open the back of the Comb Box (plain side) and push on the Plastic Cell Cups. Replace the cover. Press on the queen excluder front plate.
- IV. A colony should be prepared in advance, ready for cell building. This should be on two brood chambers, extremely strong with bees, with copious amounts of food, brood and pollen. Feeding for some time previously should achieve this. Allow the queen access to both chambers.
- V. Prepare the frames to carry the plastic cell cups. An ordinary brood frame is suitable, with the addition of two laths of wood across, which swivel. Fix the plastic cell base blocks, two rows of 12 can be accommodated on a British Standard frame.
- VI. Take out a frame from the top chamber, preferably the outside comb which contains little brood, and slide the frames over to make a space in the center for insertion of the frame holding the comb box. See note 3.
- VII. Find the queen and place her on the face of the comb box (queen excluder side) and press on the excluder. Alternatively, first press on the excluder plate and insert the queen through the hole provided in the top centre of the plate and replace the plastic cap. Carefully lower the frame into the centre of the chamber.
- VIII. Approximately 24 hours later, take out the comb box frame and inspect for eggs - a magnifying glass is helpful. If you consider the queen has not laid in all, or sufficient, cells, you may put the frame back into the hive for a few hours. The ideal age for the larvae is 24-36 hours.
- IX. There are two ways you may now proceed:
 - a) remove the queen excluder plate completely, which allows nurse bees full access to care for the eggs and the queen to go about her normal duties. The eggs take approximately 72 hours to hatch, before the larvae are of an ideal size for continuing in a cell building colony. After 3 days move the queen down to the bottom chamber and place on a queen excluder. Proceed as item 10/11.
 - b) alternatively, take out the comb box frame and gently brush off the bees. Catch the queen and release her in the bottom chamber, placing a good (undamaged) queen excluder between the two chambers.
- X. Protect the comb box frame from cold wind and take into a warm room. Carefully remove the plastic plain back plate and take out a plastic cell base plug. Check to see that it contains a good larva. Push the cell base plug onto a plastic support plug, which in turn fixes on to the plastic fixing blocks on the holding frame. Continue until you have filled the holding frame or frames.
- XI. Again, protect from the cold (inside a nucleus hive) and take the holding frame, returning it into a center space in the top brood chamber of the cell building colony, or a prepared queen less stock of your choice. Close the hive, replace the feeder. The next day, quickly look into the hive to see if the bees have accepted the cells and are continuing to build them and feeding the larvae. It will be beginners' luck if you get 100% acceptance, but an average of 70% can be hoped for, but if your labors are a complete failure, repeat the process. You could have missed some detail and remember that there is no substitute for experience.
- XII. Prepare mating hives. Using a Mini-nucs is a very popular method. We stock two varieties made from polystyrene, costing between £10 and £16, but we recommend a 3 to 5 frame nucleus hive. It should consist of 2/3 combs of sealed and emerging brood to ensure that it continues to increase in strength with young bees whilst it is queen less and have plenty of food and pollen. Use recognized methods of preventing the drifting of bees returning to their original hive. Prepare 2/3 days before inserting the virgin or queen cells.

- XIII. The queen cells are left to hatch in the building colony, but it is imperative that not one is allowed to leave her cell free to roam, or she will immediately attack the other cells and with the bees 'help' they will be pulled down. There are two alternative courses of action:
- a) on the 11th day after step 11, i.e. when the eggs have been distributed to the building colony, take out the holding frame and slip on the plastic cell protector. This allows the queens to emerge but prevents them from escaping to be attacked.
 - b) We recommend that the emergence of the queen from her cell should be in the mating hive. Therefore, on the 10th day, i.e. approximately two days before the birth, take out the holder frame (protect from cold), remove each queen cell attached to the plastic cup supports, and distribute to mating hives. Slightly open the gap between two frames and gently and securely press the top of the cup support into the comb.
- XIV. Do not disturb the mating hives for 2 weeks, except to feed if necessary. Next - the difficult bit, over which you have no control - mating. Given warm, still weather conditions the queen should mate and be laying. If after 3 weeks there is still no sign of her laying, continue to have patience for a little longer, but watch her progress as 'older' queens do not always mate satisfactorily.

Notes

1. Choose the right colony, i.e. one that is strong in bees, preferably on two brood chambers with at least 8 combs of brood in all stages, and with plenty of food and pollen.
2. Feed the colony for at least three days before the operation, and during the egg laying period. 2lbs of sugar to each pint of water.
3. Bees object to odours, it is therefore an advantage when the appliance is new to let the bees clean it for a couple of days. A little honey spread over the plastic cells will encourage the bees to do this. This will also bring the comb box to hive temperature.
4. Check at all times that queen cells are not present in the mating nuclei or cell building colony.
5. Cells are accepted better by colonies headed by an older queen, rather than a queen in her first season.
6. The comb box holds over 100 plastic cell cups, but you may use only the number you wish, i.e. breed just a few queens at a time.
7. Make sure that bees and brood are, in all cases, taken from disease free colonies.
8. Treat completed queen cells very gently, do not expose them to cold or winds. Do not lay them on their sides for any length of time.
9. Before removing plastic cell base, check to see that the queen has deposited the egg in the base and not, as they sometimes do, on the side wall.
10. Cleaning - spray the appliance with sugar syrup and leave it with the bees just for a day. The plastic cell cups, etc. may be washed in hot, not boiling water.