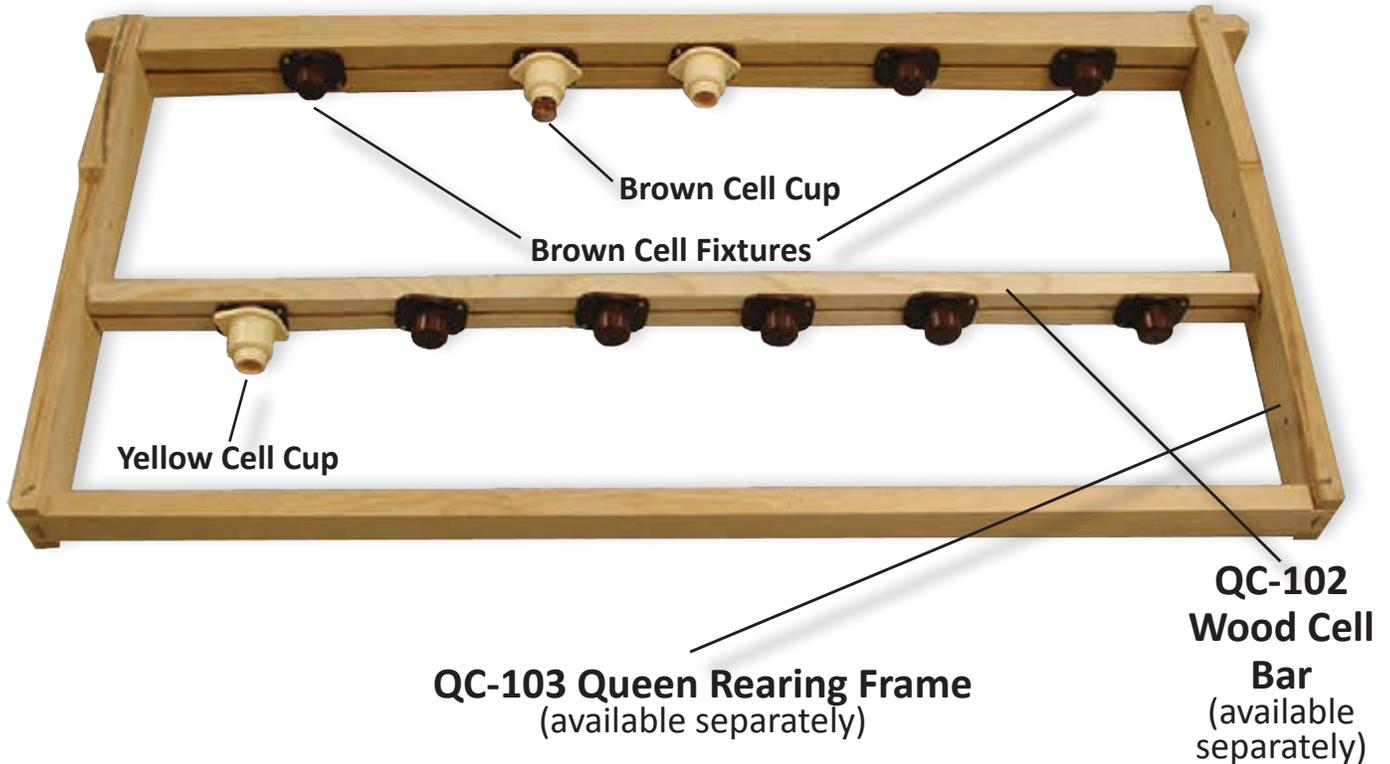


QC-100 COMPLETE QUEEN REARING KIT



Mann Lake's QC-100 Complete Queen Rearing Kit is a graftless queen rearing system; meaning that the larvae does not need to be transferred from its original cell into a cell cup before it is placed in a queenless hive.

Equipment Assembly

1) Take a Queen Rearing Frame (QC-103, available separately) and attach 10 to 14 Brown Cell Fixtures to the top bar and wood cell bar (QC-102, available separately) using a small brad nail in two opposing corner holes, the center of each as shown in **picture 1**. These will be used to attach the Yellow Cell Cup Holders to the top bar.

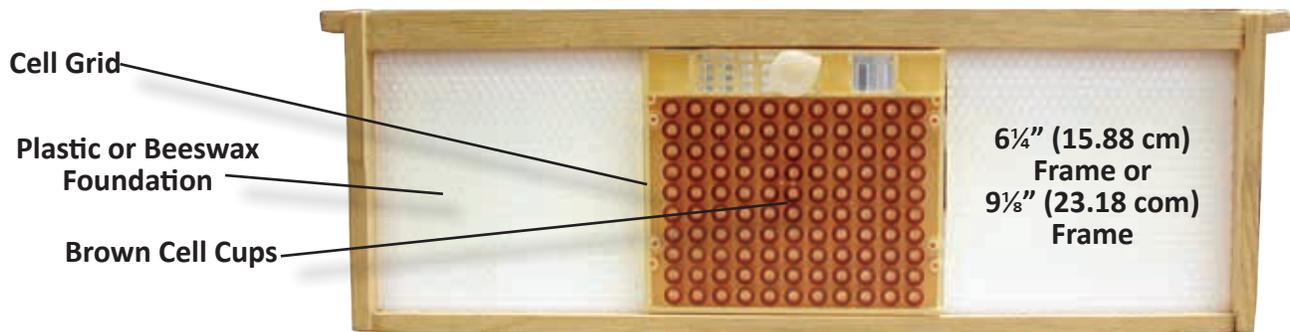


picture 1

MANN LAKE
WE KNOW BEES

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picture 2

2) Remove the back panel (solid) from the Cell Grid and fill the grid with Brown Cell Cups (110) then replace cover as shown in **picture 2**. Fill with all 110-cell cups even if not raising that many queens.

3) Attach the Cell Grid to the top bar of a 6 ¼" (15.88 cm) frame or a 9 1/8" (23.18 cm) frame. Fill in area around cell grid with plastic or beeswax foundation.

Preparing the Hive

1) Create a queenless colony that is full of bees and one or two frames of brood. This colony should be fed heavily during the whole procedure and must be queenless for at least 3 days so that the workers realize that they are queenless and thus will not kill the queen when she is introduced into the hive.

2) During this same time period, place the Frame with the Cell Grid assembly into a hive to allow the bees to clean it and for it to absorb the natural hive odor prior to introducing the queen to the Cell Grid.

3) Select a breeder queen possessing the traits that you wish your new queens to have (i.e. good honey production, mite resistance, gentleness).

Actual Breeding Process

1) Remove the small white cap plug from the front panel (slotted) of the Cell Grid.

2) Gently place the breeder queen in the Cell Grid and replace the cap.

3) Insert the Frame with the Cell Grid assembly into the queenless hive.

4) Close up the hive and leave for approximately 72 hours.

5) After 3 days, remove the Frame with the Cell Grid assembly from the hive. Most Brown Cell Cups should have a small white larva in the bottom.

6) Carefully remove the back panel of the Cell Grid and either **a)** trap the queen on the front side of the Cell Grid by blocking the entrance with a piece of tissue OR **b)** place a queen cage over the entrance to the cell grid until the queen is captured in the cage.

7) Take the desired number of Yellow Cell Cup Holders, place them over the Brown Cell Cups and gently remove them from the Cell Grid. Discard any of the cell cups with larvae in them that won't be used (acceptance drops by more than 50% on reused cell cups).

8) Attach the Yellow Cell Cup Holders to the Brown Cell Fixtures that were previously nailed to the top bar and cell bar as shown in pictures 3 and 4.

9) Place frame into the queenless hive.

10) Continue to feed the hive sugar syrup and check for supercedure cells. If any are found, destroy them by pinching them off.

11) After approximately 8-10 days, the larvae should be totally enclosed. Once this has occurred, you can place a Hair Roller Cage over each larva as shown in picture 5. If the cell is not totally enclosed, wait 24 hours or so and recheck or the first queen to emerge will chew down remaining queen cells and kill the them.

12) Leave the Hair Roller Cage on the queen cell, and she will emerge directly into the cage on approximately the 16th day.

You now have a caged virgin queen that can be introduced into a mating nuc or directly into a hive as a replacement queen!

