

# Cloake board queen rearing

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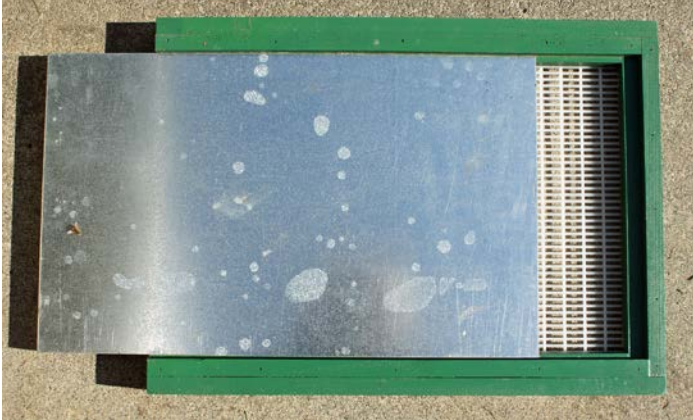
## “How To”

The Cloake board, invented by Harry Cloake of New Zealand, is a piece of beekeeping equipment used to raise queens. The Cloake board method of queen rearing is popular with hobby beekeepers because it allows you to raise queens with a minimum of equipment and very little disturbance to the hive.

Raising high-quality queens by using a single hive as your donor, cell starter and cell finisher.

The board consists of a removable metal or plastic sheet in a three-sided rim that sits above a queen excluder.

It is the “removable floor” that allows the beekeeper to completely separate the two parts of the hive. When the floor is removed, the workers are able to travel throughout the hive, while the queen remains trapped below the excluder.

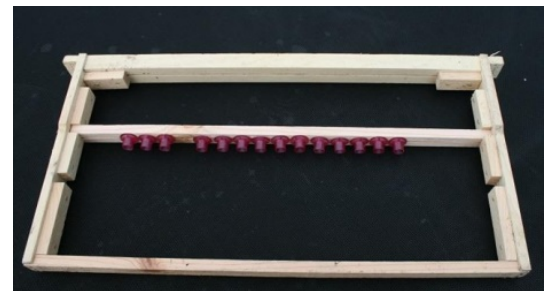


## What you need to rear your own queens

A strong colony in a double brood box.

A Cloake board

A frame of grafted cell cups



## Day 1-Colony preparation

1. Inspect the colony and **find the queen**. Place her into the bottom box. Rearrange some of the frames so that there is ample **open brood** in the **upper box**.
2. **Block** the entrance of the bottom box and **reverse** it on the hive stand.
3. Add the Cloake board and QE **without the slide**. The Cloake board entrance should be on the **front** of the hive above the now sealed original entrance.
4. Place the queen less upper box with 2 to 4 frames of **open brood** and put the frame with empty cell bars beside it to have them polished and cleaned in preparation for crafting.
5. Reassemble the hive, place the sloping ply sheet as shown and **leave the colony** alone for **24 hours**.



- The sloping ply sheet really does help, particularly if you use open mesh floors under which the bees tend to cluster when they can't find the original entrance.
- The field bees will now return to the hive, find their original entrance missing, and eventually discover the new upper entrance. The frames of uncapped brood that we moved to the upper super will cause some of the nurse bees to move up to tend to the young. This is very important, as we need lots of young bees with active hypo-pharyngeal glands to make the royal jelly essential for queen production.

## Day 2-Concentrating the bees

1. Gently **insert the slide** into the Cloake board, effectively creating two separate colonies.
2. **Open** the lower back entrance on the reverse face of the hive.
3. Add 200ml or so of **syrup** (2:1 w/v sugar and water) to the top feeder.
4. **Leave the colony for 24 hours.**

## Day 3-Grafting

1. Gently open the hive.
2. **Remove any queen cells** started on uncapped frames in the upper box.
3. **Remove the cell cup holder frame**, brush the bees back into the colony and do the grafting.
4. **Add your frame of grafts** to the centre in the middle of the brood which by now, will be packed with bees. Don't force it, just let it slowly and gently slide down into the mass of bees.
5. Add some more syrup to the feeder.
6. Replace the crownboard and roof.

## Day 4-Raising the queen cells

Check the grafts were accepted. If not, you can graft again immediately (go back to day 3).

1. **Gently remove the slide from the Cloake board.** By removing the floor board, we are putting the colony back in its original configuration.
2. Add some more syrup to the feeder.
3. **Check again 5 days after grafting.** The grafted cells should now be sealed. Check the other frames in the upper box for queen cells and ensure you destroy any that have been started.

## Use the grafted cells 10 days after grafting.

Notes on raising queen cells ...

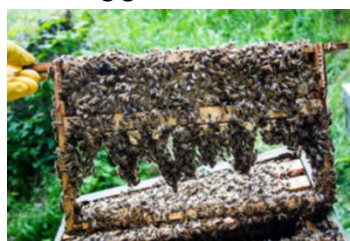
You can tell whether the grafts have been accepted by the presence of a ring of new wax around the rim of the cell cup. This wax rim will be about 3-4 mm deep after 24 hours. The cell bar will be heavily festooned with bees. Don't shake or brush them off, just gently move them aside with your fingers to inspect the cell cups.

- If the larvae haven't been accepted it's either because they were damaged during grafting, or the colony – for whatever reason – is not suitably prepared (is the queen in the top box?). You can try grafting again.
- After 5 days the cells should be capped. They can be caged at this stage or later to prevent their destruction should a virgin queen emerge early. Remember to also check the other frames in the top box. Destroy any queen cells you find other than your grafts.

Concentrating bees



Checking grafted larvae



Three day old grafts

