

## **7 ways to find the queen**

**(And 1 way to get a result without finding the queen)**

### **1. Go to the Centre of the Hive.**

- a. Use minimal smoke, 1 – 2 puffs, take off the honey super and queen excluder;
- b. Space the frames apart in the middle of the brood box;
- c. Scrape off burr comb on side of top-bar;
- d. Carefully lift one frame out of the middle taking care not to squash the bees;
- e. Briefly scan over each side of this frame (like reading, taking about a minute). Place this frame in a spare box and continue with the next frame.

The queen can be seen on the wall of the hive body or on the bottom board. The centre of the brood nest on a frame with eggs is the most likely place to find her. Speed is an advantage because the queen can hide well. Have an empty queen cage handy if you find her on the first frame you might recycle her into a drone layer or an egg-less hive later if she has a good brood pattern or has other good qualities. Once you have found her, shake bees off combs, check for disease, manipulate combs, scratch honey in corners to make egg laying space, lift honey out to top and replace with empty brood combs, introduce cage and mark the front of the with a code – date – breeder.

### **2. Go to the Outside of the Hive.**

- a. Place an empty box next to the hive;
- b. Use minimal smoke, 1 – 2 puffs, take off the honey super and queen excluder;
- c. With the sun over your shoulder, remove the outside frame furthest from you, check for the queen, and place in the empty box;
- d. Remove the frame closest to you, again checking for the queen before placing in the spare box. While it is not usual to find the queen on the outside frames, it can happen. By removing these frames first from the hive it will create a light barrier between the next frame and the hive wall. This will confine the queen to the remaining frames;
- e. Before checking both sides of the frame closest to you, glance down the face of the frame. Often, the queen stands out taller than the other bees and can be more easily spotted up to 20% of the time on the face of the frame before it is removed. Repeat for remaining frames until the queen is found.

### **3. Dived and Conquer**

- a. Put an empty box next to the hive;
- b. Take out half the frames and place them in the empty box. Place in each of the two boxes empty combs to make up the space where frames are missing;
- c. Next you will have 4 frames of bees and brood, and 4 frames of pollen/honey/empty combs in each box.

The next day one of the hives will have fanning bees at the entrance. She will now be easier to find because you know which box she is in and only have half the number of bees to search.

If you have two brood boxes one on top of the other, by splitting them you get a similar result – half the bees will be in one box and half the bees plus the queen will be in the other box. The advantage of this method is that it only takes seconds to do.

#### **4. The Last Resort**

This one is as a last resort and perfect for a recycled queen. It is also suitable to use on drone layer or stinging hive.

- a. Move the whole hive 10-20 metres or more, behind landmarks preferably. This will cause them to drift back to their original position;
- b. Shake all of the bees off the comb onto the ground and place all frames into a new hive body which is elevated on a table. This ensures that the queen cannot re-enter the hive;
- c. Return the brood box onto the original spot to collect all returning field bees;
- d. The queen will not be able to fly back;
- e. Check 7 days later for queen cells, knock them off and introduce caged queen.

#### **5. Drift Method**

Suitable for pallets or apiaries with pairs or rows of hives.

- a. Move hive to a new position behind a landmark and turn entrance 180 degrees;
- b. This will cause all the field bees to return to the hive next door. Usually this is OK under good conditions;
- c. The next day, or even a few hours later, you only have nurse bees and the queen bee left in the hive on the brood frames;
- d. This will give us the edge in finding the old queen.

#### **6. Divide and Divide Again**

- a. Place an empty hive box next to the hive;
- b. Use method 1. first;
- c. Place 4 frames in each box with bees adhering. Pair up frames. This should make the bees and the queen go between either two frames where it is darker;
- d. After 10 minutes, look for the queen and remember to look on the walls and floor as well.

#### **7. Strainer Method**

This one will demoralise the hive for a while, so should only be used if all else fails.

- a. Move hive onto next hive and place an empty hive body on the original location;
- b. On top of that we place an empty super with the queen excluder screwed onto the bottom. This is called the strainer box;
- c. Shake all of the bees into the strainer box and then return the brood frames to their original position under the strainer box;
- d. With a little smoke, force all of the bees in the strainer down into the box containing the brood;
- e. You will now have only the queen bee and drones left in the strainer box;

- f. Use only cool smoke so the bees do not panic and run up the walls of the strainer box.

A slight variation of this is as follows: move the hive and replace a new bottom board. Place a queen excluder on the bottom board and put an empty box on top of the excluder. Shake all of the bees onto the ground in front of the original position and put the brood frames into the new hive box. Many apiarists put a sheet of cloth on the ground in front of the hive so the bees can more easily get to the hive entrance and do not get tangled in grass. The bees will climb back into the hive and pass through the excluder to look after the brood. When the hive has settled down lift the brood box off the excluder and the queen will be trapped between the excluder and the bottom board.

### **8. Supersedure Method (Autumn only)**

This method involves splitting the hive to introduce queen cells, possibly leaving the old behind.

- a. Shake all bees off brood combs into old brood box and put the brood frames into a new super;
- b. This is not to be done under a heavy honey flow as you risk drowning the bees in their nectar;
- c. Fill brood box with empty brood combs, replace queen excluder and place box of brood on top. Nurse bees will move up through queen excluder to feed the young. This can be done up to 7 days before the new queen arrives in the mail;
- d. The old queen will occupy empty combs and start laying there. After 6 hours or next day the hive can be split with a division board or taken away to a new site. Either way you introduce the new queen into this new brood box;
- e. Since the old queen has lost brood and bees she should be easier to find in the next few days.

By introducing a queen cell placed in a cell protector or hair roller, it should survive and hatch the next day. When the virgin queen hatches it does not have any queen pheromones. The old queen is used to bees walking over her and grooming her and therefore the chances of the old queen being killed by the virgin queen with a sting is high. This method is widely used by commercial apiarists and should give 80% success. I would split stronger hives to give us over 100% of laying young queens for the coming season. For this to work we need good drone population and a breeding flow of nectar and pollen.

### **9. Marking the Queen**

If you do not plan to replace the queen when you have located her it is a good idea to mark her thorax with bright colour so that she is more easily located in the future. There are various queen bee traps available that are used to constrain the queen bee while the apiarist marks the queen bee's thorax with, say a yellow, non-toxic marker. I use a yellow marker since I find that yellow stands out more. Convention has it though, that the queen bee is marked with a different colour depending on the year that it was born. The colour code is:

Year ending in 0 or 5 (e.g. 2000 or 2005): blue  
Year ending in 1 or 6 (e.g. 2001 or 2006): white or grey  
Year ending in 2 or 7 (e.g. 2002 or 2007): yellow  
Year ending in 3 or 8 (e.g. 2003 or 2008): red  
Year ending in 4 or 9 (e.g. 2004 or 2009): green