

## **Queen Rearing with Tony Bengé**

### **Surry County Beekeepers Association**

### **May 11, 2015 Meeting**

*Notes from the presentation*

Tony displayed the tools needed for breeding queens:

- Grafting tools
- Cell cups
- Cell bars and frame
- Royal jelly
- Bright light and magnifying glasses

First you need to create the starter hive. Tony uses 5 frame nuc sized boxes to get his starter bees. This requires 2 boxes. One with bees and a queen on the bottom, then a queen excluder topped with a second box that should include a frame of open honey, a frame of open brood, a cell bar frame that has no cells yet, a second frame of open brood, and a second frame of open honey.

You want your boxes to be crowded with bees. The open brood in the box above the bottom box will attract the right age nurse bees to the top box. The open honey will assure they are well fed.

You will also need to get a frame of fresh brood to graft into the cell cups that will go in the cell bars. You want larva that is young because the worker bees feed the new larva royal jelly initially and then convert to worker jelly. The best queens are only fed royal jelly.

Queen lays an egg and it stands up straight in the middle of the cell.

Day 2 the egg is starting to lean and will be at about 2:00 position.

Day 3 the egg is on its side.

Day 4 egg is hatched and larva is fed royal jelly

Day 5 larva is fed royal jelly

Day 6 larva may or may not start to be fed worker jelly – need to graft from day 4 or day 5 larva.

When you are grafting a larva into a cell cup, if the larva hangs over the side of the grafting tool, it's too old.

You can use a little royal jelly or water in the bottom of the cell cup to help float the larva when you are grafting. The worker bees will remove it because it's not something they made.

24 hours before you graft, put the cloaker in the cloaking board so the box on the top will lose the scent of the queen below. This makes the starter bees queenless.

It takes the bees about 6 hours to realize they have no queen.

Once you have grafted the young larva into the queen cups, put the frame with the cell bars into the middle position of your queenless starter hive.

Don't touch the frame once you put them in because they can fall down and die in the cell.

You need to keep count of the days from when the queen laid the eggs you grafted.

On day 8 the bees will cap the cell.

On day 12 or 13, you need to make up mating nucs.

Mating nucs should have 2 frames of capped brood, 1 frame of honey, and 2 frames of foundation.

Take a queen cell and put her on a frame of brood where is the best coverage of the bees.

The queen should hatch at day 15 if the hive is healthy.

Leave the new queen alone for about a week.

On day 3 after she hatches, she'll start to produce queen pheromone.

On day 6 she should start taking orienting flights.

On day 7 or 8 she'll start taking mating flights.

Over a 2 or 3 day period, she'll make multiple flights. A good queen will mate with at least 12-14 drones.

Generally, the queen will start to lay on the frame where she hatched from.

Once she is laying, you can put her in a queen cage and cell her or use her to requeen another hive.

To make sugar candy for the queen cage, mix powdered sugar with enough water to get it a crumbly consistency.