Queen Rearing in Cape Honeybees
Queen Rearing

• Why
• When
• How
• Introductions
Why?

- Not just randomly trapped swarms; control of your population
Why?

- Young Queens (< 2 years)
Why?

- Colony Increases (limit loss of productivity; limit laying worker problem)
Why?

- Selective Breeding (non-random; pick the characteristics you like; defensive or non-defensive; disease tolerance; better honey production; low swarming; better pollinators. Not all eggs in one basket!)
BUT

• Must keep records
• Must have marked queens
• Must have marked colonies
When?

- Anytime
- Best between August & November
- Same as natural queen replacement
- Very bad in mid-summer, after a big flow, or during a big flow
- Depends on what forage you have available; and what your requirements are
- Must be good pollen and nectar coming in
How?

• Not really different with Cape bees
• No difference because of weather
• Just have to make sure the colony is not queenless for long, because otherwise laying worker problems
• And will not accept a queen that has been out of the colony for >48 hrs
How?

- Many, many methods – not go into them. This is what works for us
- Dictated by scale; by how many queens you need
How? – Small-scale

- Natural colony increase
- Watch when the colony is swarming naturally
- Just split the colony & remove the queenright half without cells, and leave a queenless half with cells
- Canola is perfect for this or any other good honey flow
How? Small Number of Colonies

- Correct time of year
- Select the “good” colonies you like
- Split by removing the queenright half
- Harvest queen cells (leave last 2) at 10 days
- Put cells (2 in each) in non-performing colonies, from which you removed the queens the day before
How? Large-Scale

- Grafting or Doolittle method
- Donor colonies
- Recipient colonies – must be strong – 2 brood boxes of bees
- Cups: plastic or wax. Clean wax- Size is crucial
- Graft frame; rotating; 2 or 3 bars; 24 or 36 cells
How? Large-Scale

• Day 1: remove queen 09h00; keep with bees & candy in the dark

• Put in graft frame; between 2 open-brood frames, to get nurse bees; to polish cells
How? Large-Scale

- At 15h00 remove frame, put drop of royal jelly in each cell; then graft tiny larvae from donor colony into cells; use any tool that works; keep moist and cool. Need good eyes and practice
- Return to colony
Note!

- Queen cells always cheap; use two in case one doesn’t emerge
- Very fragile from 3-9 days; don’t shake, or touch
- Cells much better than live queens; easier, no incubators or feeding, and Cape bees do not like live queen introductions
- Always move splits to a new apiary; not just a few metres away
How? Large-Scale

- Day 2: check. 90% of cells with larvae will remain. If no good, put queen back and try another colony.
- If okay, put 2 open brood frames above the queen excluder, with 2 frames of pollen/honey; and graft frame between the brood frames
- And queen back into the colony
- Remove cells on 10th day for introductions; put brood back below; remove any additional queen cells
Introductions

- Get colonies ready on 9th day
- Always 2 cells on 10th day
- Just put between top bars
- Splits always to a new apiary
- Must remove queens from splits; hard to do
- Method that I like