Methods of Queen Rearing

Queen Rearing Course 2017
“Types” of queens

- Swarm
- Emergency
- Supersedure
Why raise your own?

- Genetics
- Expansion
- Economics
- Young queens
Basic Needs of Queen Cells

- Queenless to start...
- ...queenright to finish
- Heat & moisture
- Timing...
  - Nectar flow/swarming season
  - Drones!
Cell Builders

- Start your cell builder 1-2 days before grafting or inserting cells
- Remove/exclude queen
- Add food if necessary
- Lots of young bees required
Queenless Cell Builders

- Cage
- Make a split
- Cloake board
- Maintain a queenless colony
  - Add brood weekly
Cloake Boards

- Queen excluder with slide & entrance
- Use same colony for starting/finishing cells
- Must reverse lower entrance
METHOD 1: Miller

• PROS
  – No grafting!!
  – Relatively simple

• CONS
  – Cells may not be ready at the same time
  – Nectar flow required to draw foundation
  – Lots of little work
Miller Method

- Strips of foundation (or drawn comb)
  - 1.5 inch wide
  - Cut to a point 1.5 inches from the bottom
Miller Method

- Breeder colony
  - Draw out foundation
  - Queen lays
- Day 4 (since laying)
  - Remove frame
  - Cut back to 4 day larvae
- Cell builder
  - Feed and build queen cells along edges
METHOD 2: Doolittle

- **PROS**
  - More control over timing
  - Effective, popular

- **CONS**
  - Grafting required
Doolittle Method - Grafting

- Warm, well lit place
- Larvae - 4 days “old” (since laying)
  - Crescent, not “C”
- Black foundation or older brood comb is easier
- Grafting frame, cell cups with larvae should be kept warm & moist
Doolittle Method

• After grafting, insert into your queenless cell builder
  • Make space in advance!
• Mark your calendar!!
### A Simple Queen Rearing Technique

1. **Breeder plays eggs**
2. **Eggs hatch**
3. **Larva grafted into cell builder**
4. **Cells are sealed**
5. **Out builder in mating nuc**
6. **Cells hatch**
7. **Queen mates**
8. **Queen begins laying**

(Illustration: Tom Glenn, Glenn Apiaries)
Doolittle Method

• 11 days later...
Doolittle Method

- ...and into your mating nuc!
METHOD 3: Cell Plug Box

• Nicot/Jenter

• PROS
  – No grafting OR handling cells!

• CONS
  – Lots of small, finicky pieces
  – Must handle breeder queen
Cell Plug Box

- Plastic box with queen excluder and artificial, movable cells
- First time...put into a colony for a few days
- Attached to cut comb or foundation
Cell Plug Box

• Insert into cut comb, or attach to foundation
• Catch queen & release in box
• Queen lays in cells
• Box is removed after 5 days
• Cells taken out with plug holders
Success!

- Wishing you all MANY perfectly hatched queen cells!!!
Sources

- http://beespoke.info/2015/06/06/jenter-kit-instructions/
- http://www.dave-cushman.net/bee/cellplugbox.html
- http://www.dave-cushman.net/bee/millermethod.html