

Running a queen rearing course



Sean Stephenson
sean@resms.co.uk

Queen Rearing



BBKA NEWS
Special Issue Series



Audience

- Where to pitch a course
 - Beekeeper relatively new to beekeeping
 - Ideally with BBKA Basic Certificate
 - Beekeeper looking to learn tricks of the trade
 - Experienced beekeeper looking to breed own queens



Why a weekend course?

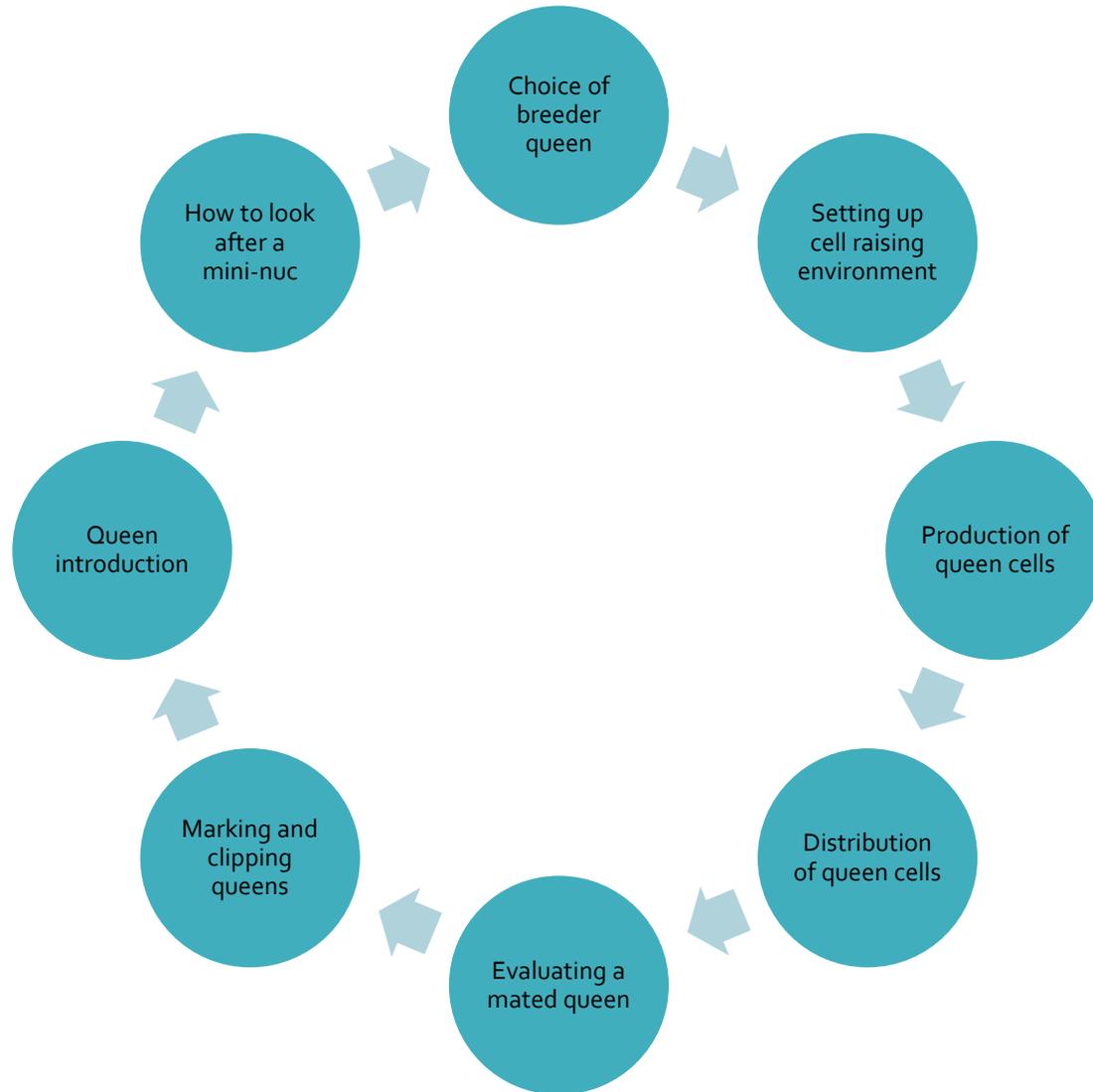
- Multi session course
 - Follow the programme through as per the queen rearing timetable
 - Long duration
 - Multiple dates
 - No continuity
 - Possibly no time to implement learning
- Weekend course
 - Intensive
 - Guarantee attendance end to end
 - Student may have opportunity to carry out queen rearing in the same season



What do you think needs to be included
in a queen rearing course?



Topics for a queen rearing course



Principles for a hands-on course

- No presentations
- Spend as much time as possible with bees
- There are 8 sessions and 8 topics to cover
- Students leave obliged to implement what they have learnt
- Work in small groups
- Assumption 12 attendees 3 groups of 4



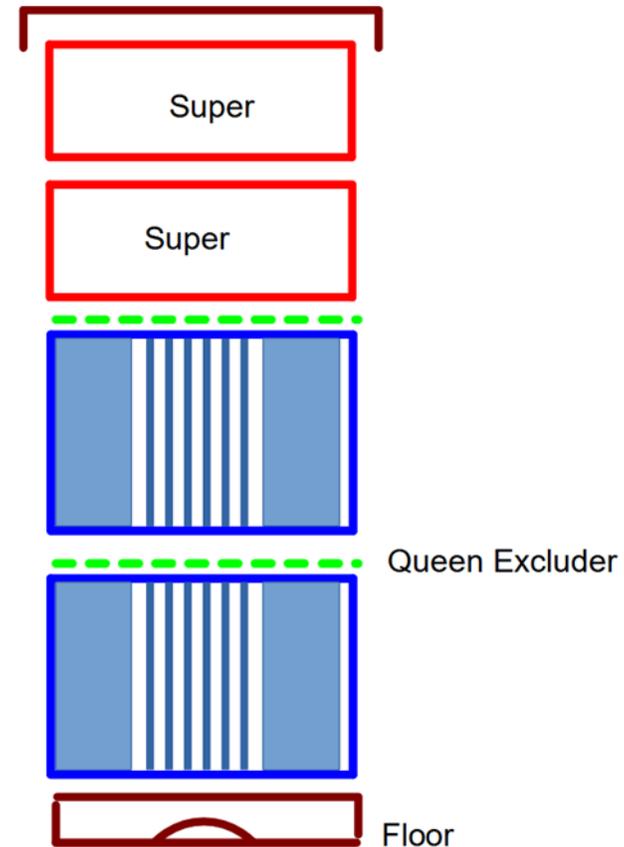
Choice of breeder queen

- Each group inspects and rates a colony
 - Calmness
 - Queen productivity
 - Brood pattern
 - Frames of brood
 - Disease
 - Suitability of colony to provide material
 - Group discussion to choose the preferred colony
 - Good opportunity to evaluate attendees' beekeeping skills
-
- Preparation, need 3 suitable large colonies



Setting up cell raising environment

- Queen right
 - Ben Harden suitable system
 - Requires a single brood box colony
 - Insert grafting frame
 - Queen less
 - Full size nucleus
- Demonstrate setting up both systems





Queen cell success factors

Stores

Pollen

Eggs from Breeder

Young Brood

Sealed and Hatching

Sealed and Hatching

Sealed and Hatching

Stores



There are other methods



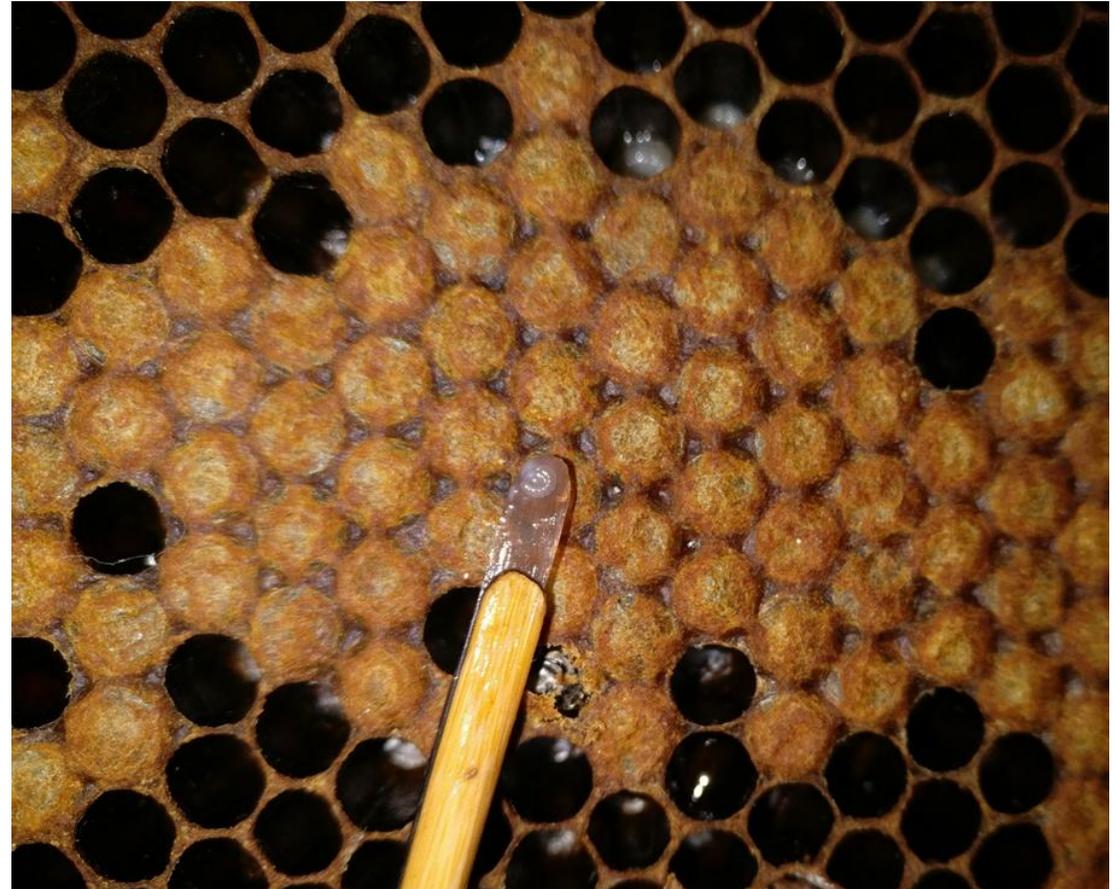
Choosing material

- Grafting or Miller frame, same principles
 - Young larvae
 - Accessible to young nurse bees
- Grafting cements an understanding of material required
 - It does not matter if a student cannot do it
 - Recognising 1-day old larvae is enough



Grafting

- Grafting
 - Most Beekeepers fear it
 - Until they have tried it
 - Make it simple
- Work in small groups
 - In a safe place
 - With segments of suitable brood comb
 - Provide a variety of tools
- Place best graft from each student in frame



Equipment required



Make a valley



Queen Cells 😊



Distribution of queen cells





Evaluation of mated queen

- Open colony with new queen
 - Check in lay
 - Check sealed cells
 - Mark and clip queen

- Need 12 new queens

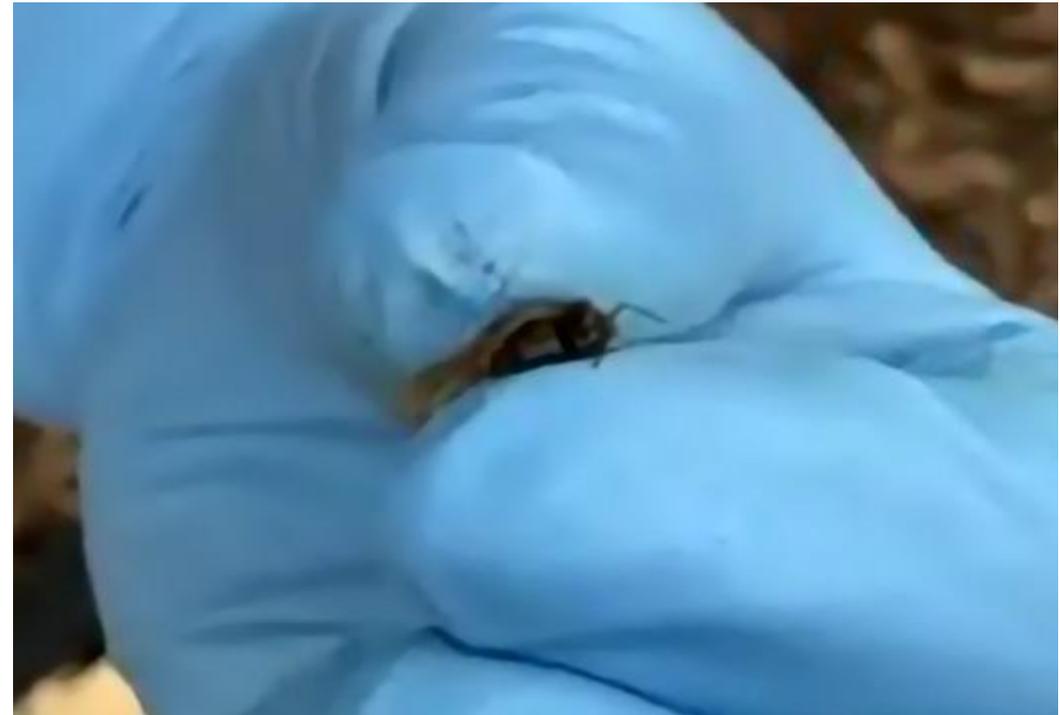


Good new queen?



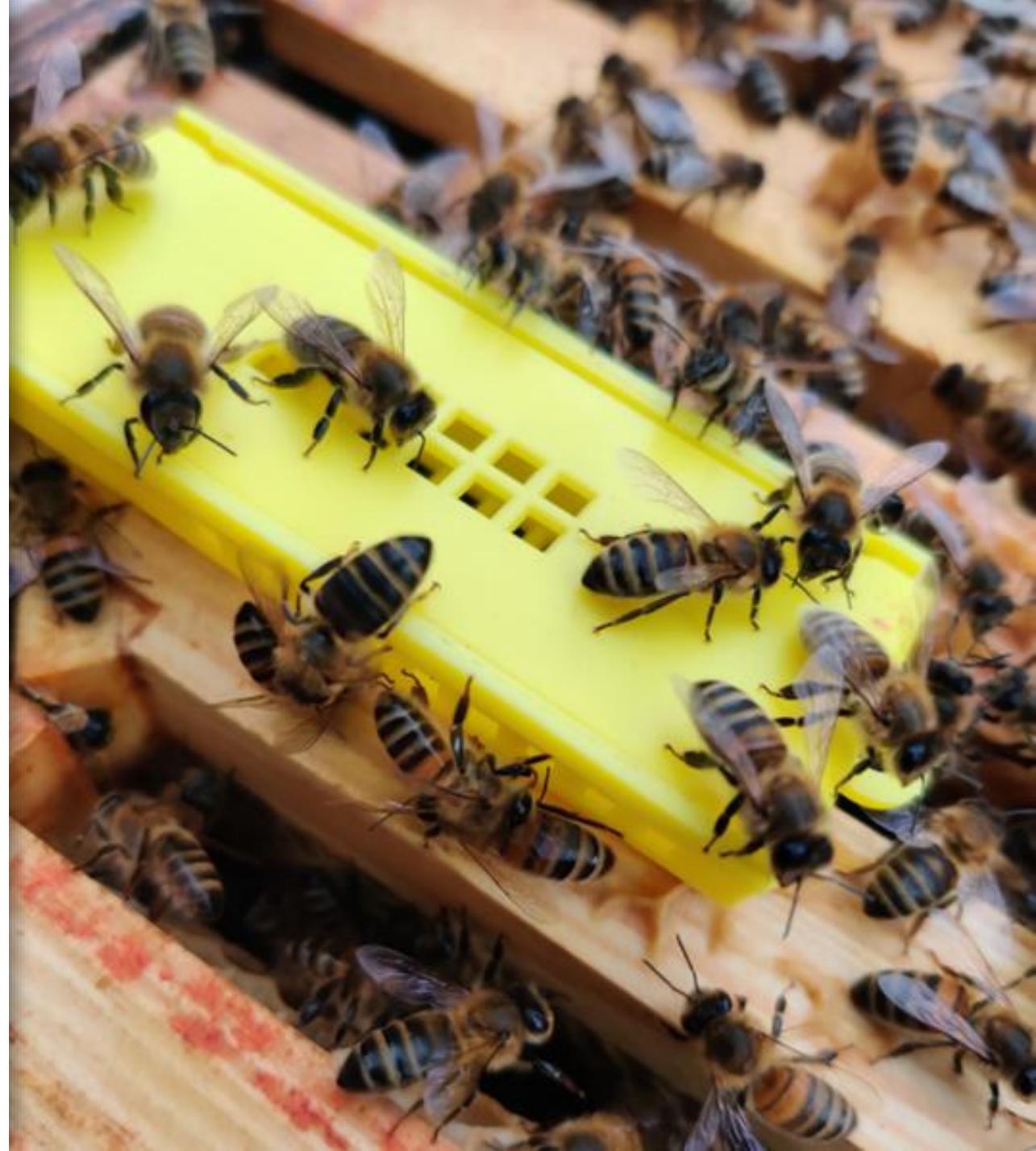
Marking and clipping queens

- Practice on drones
 - Best on drone laying queen colony
 - Everyone must be comfortable with picking up queen
 - Marking and clipping
- Demonstrate the method
 - Students to do it for real



Queen introduction

- Simple introduction
 - Small colony
- Uniting
 - Two larger colonies
- Re-queen an aggressive colony
 - Full size colony



Preparation – equipment/materials

Queens

- 12 x sealed queen cells ready for distribution
- 12 x mated queens ready for marking and clipping

Colonies

- 3 x for breeder queen assessment
- 1 x for queen right demonstration
- Queen less nucleus

Mating nuclei

- 12 x for students
- Fondant
- Foundation strips

Grafting frame

- 12 x student blocks
- Sacrificial frame with grafting material

Timings

Session Day 1	Task
Arrival to coffee	Assemble Mini nuc, make sure each is marked with owner's name Populate 12 mini nucs, store in cool dark place, students to manage
Coffee to Lunch	Inspect colonies to assess breeder queen Assemble queen right cell builder/raiser colony
Lunch to Tea	Practice grafting Introduce grafts to cell raiser/builder
Tea to wash up	Demonstrate Miller frame with queen less nucleus
Session Day 2	Task
Arrival to coffee	Practice clipping and marking drones Inspect mated nuclei, mark and clip queens
Coffee to Lunch	Queen introduction, queen cell, cage and uniting. Groups demo to each other
Lunch to Tea	Re-queening an aggressive colony
Tea to wash up	Check grafts How to look after the mini nucs

Tasks

Mini nuc

- Populate
- Manage throughout the weekend
- Take away (obligation to practice what has been learnt)

Production of queen cells

- Assess breeder queen
- Set up colony for raising queen cells
- Grafting/Miller frame

Queen mating

- Distribution of queen cells
- Checking queen mating

Queen management

- Queen introduction
- Management of an aggressive colony

Related Activities

- Team
 - Three assistants, one per group
- During lunch Day 1 collect material for grafting
- Student just needs bee suit and boots
 - All other materials supplied by course, including: Hive tools, gloves, smoker and grafting equipment
- All required equipment collected and carried to apiary by students
 - They need to think about the task ahead

Any questions?



sean@resms.co.uk