

# Introduction to Queen Rearing

Miller Method & Demaree Method

30<sup>th</sup> January 2019 - 7:30pm - Anne Rowberry & Dan Job



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# Introduction

- Overview of Queen Rearing
- Miller Method – Dedicated Queen rearing method
  - A Few simple manipulations.
- Demaree Method – Swarm prevention using brood relocation
  - Can be used to raise queens.
- Queen Mating – Options



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# Queen Rearing – What's Required?

- Patience & perseverance
- Set up & equipment
- Hive manipulations
- Planning & timing
- Queen mating plan



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# Why actively rear Queens?

- Selection – Raise queens from stock with desired characteristics
  - Honey production
  - Temperament
  - Hygienic behaviour
  - Efficient use of winter stores
  - Few signs of disease
  - Colony growth / Brood production
  - Low swarming tendency
- Avoid buying in queens / Replace failing queens
- Be sustainable – Replace winter losses / Expand colony numbers



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# How the bees do it!

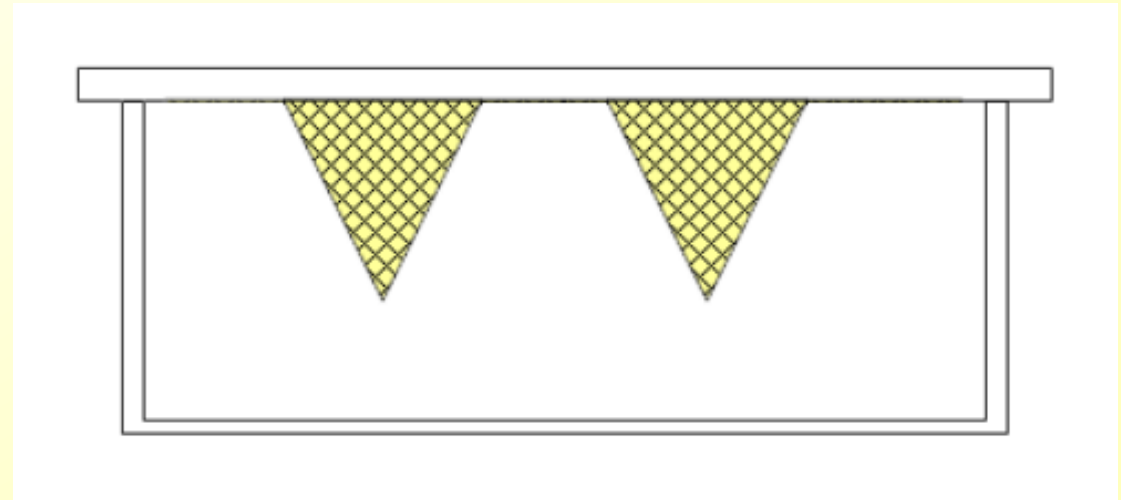
- Cycle 3 / 5 / 7 ish (Egg / Larvae / Pupa)
  - Don't forget this can vary slightly dependent on temperature
- Why will bees raise new queens
  - Emergency – Convert eggs intended for workers
  - Swarming – Planned (reproduction)
  - Supersedure – Planned (replacement)



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# Miller Method

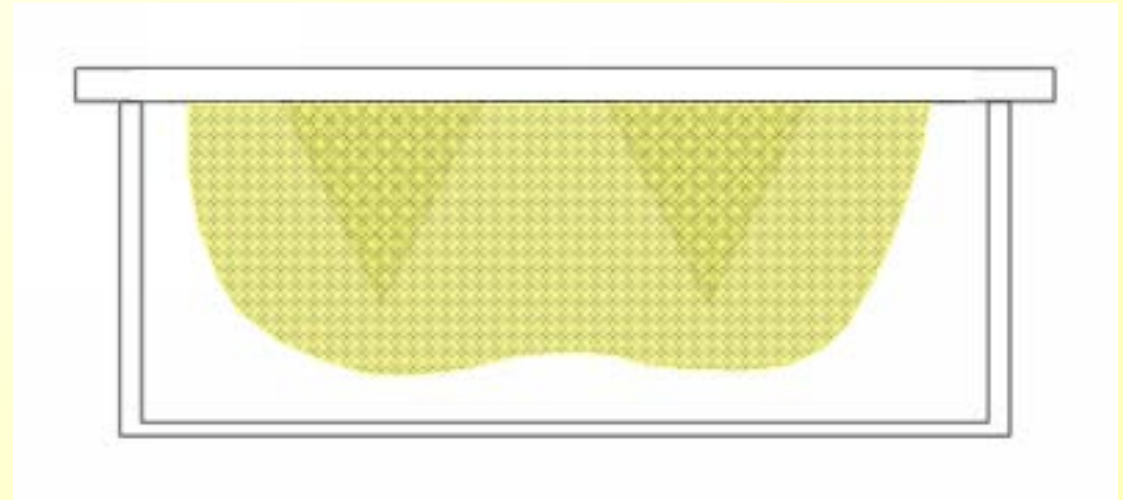
- Prepare the frame
  - Saw tooth – ease of subsequent harvesting of QC's
  - 2-3 spikes 5-10 QC's
- Foundation or drawn comb
- Insert into parent colony
  - In centre of brood cluster
  - Check at 3 days intervals



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# Miller Method

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  - In centre of brood cluster
  - Check at 3 days intervals
  - Developing larvae in centre
  - Day old eggs on edge



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# Miller Method

- Set up Cell Raising Colony – Simple Method
  - Use a colony which is prone to swarming, often good at raising queens.
  - Utilise emergency response - Remove queen.
  - Ensure ample pollen in adjacent frame and good income of nectar.
- Set up Cell Raising Colony – Assembled from various colonies
  - Lots of young bees (shake in 6-8 frames into a 5/6 frame nuc)
  - Frames of capped or well developed larvae
  - Nectar or uncapped/unripe honey & frame of pollen
  - Gap left in middle for Breeding-Comb

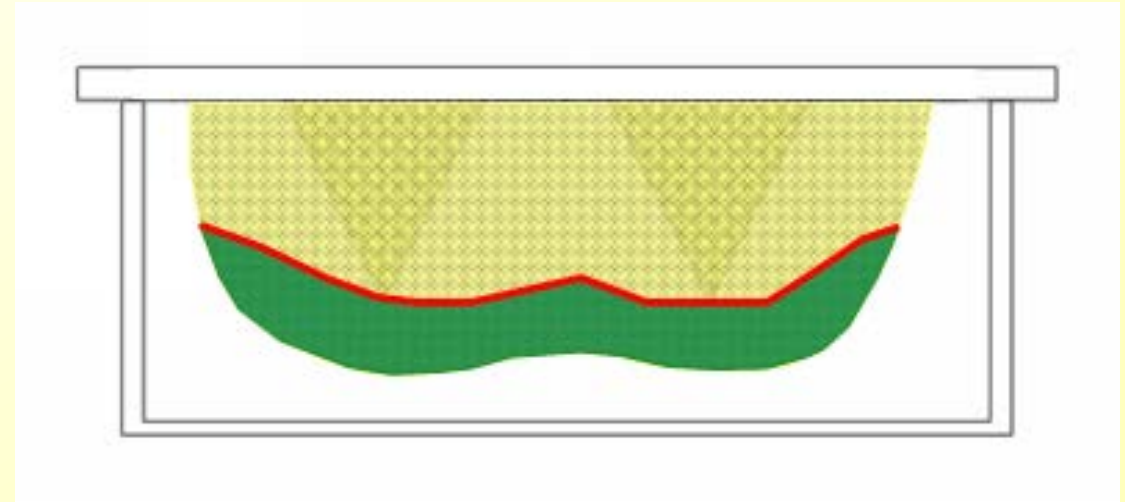


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# Miller Method

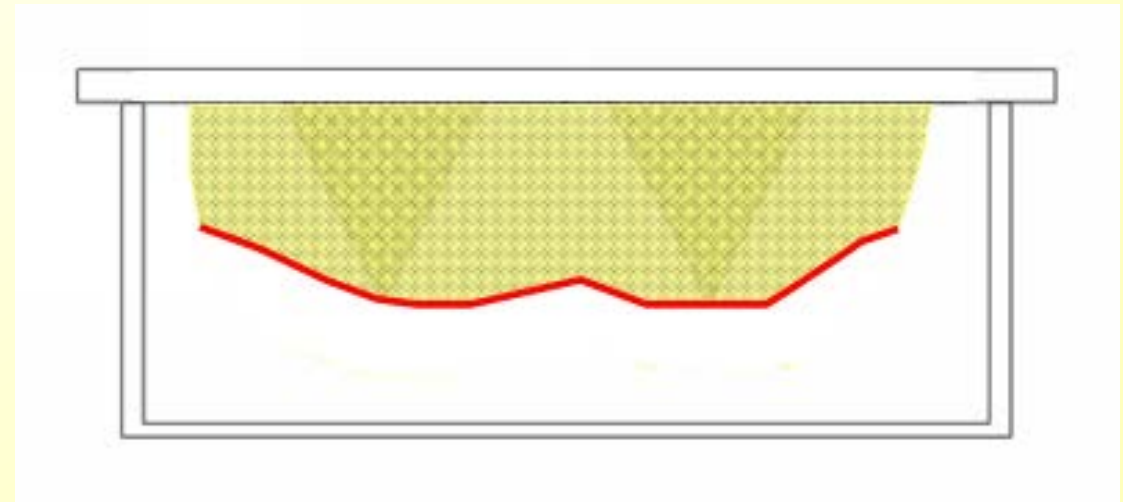
- Trim Frame
  - Remove Eggs
  - Expose larvae 24-48hr old



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# Miller Method

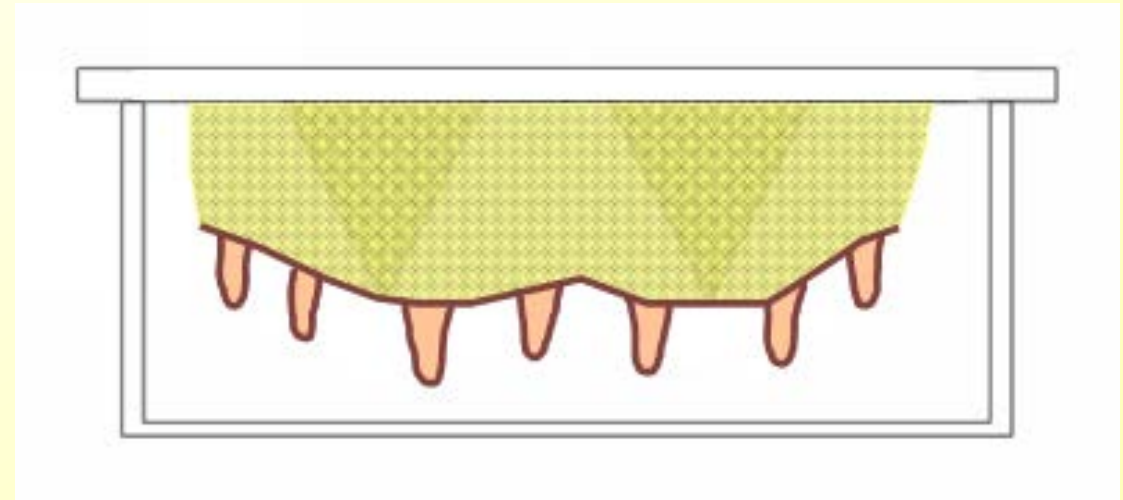
- Trim Frame
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- Insert into gap in starter colony



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# Miller Method

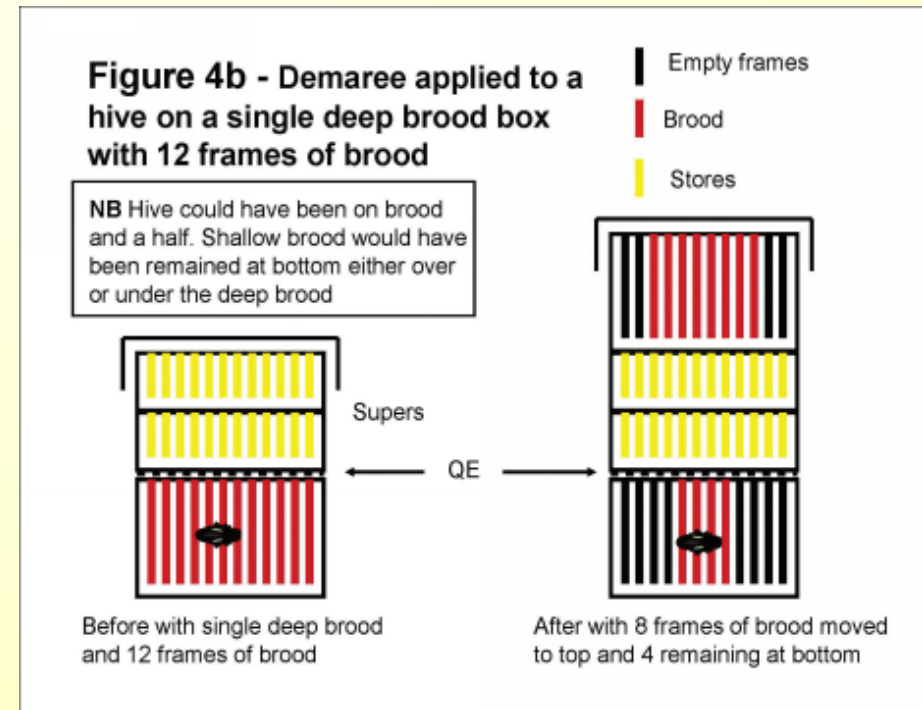
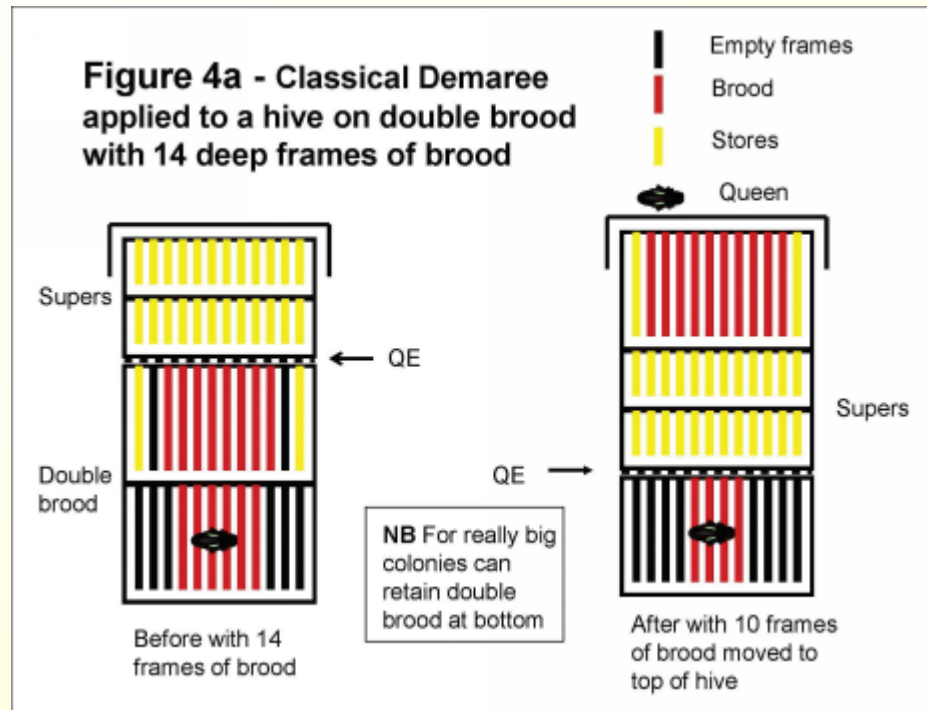
- Trim Frame
  - Remove Eggs
  - Expose larvae 24-48hr old
- Insert into gap in starter colony
- Inspect for Queen cells
  - 9 days on QC's capped
  - Larvae pupated
  - Easy to access / cut out



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# Demaree Manipulation

- Swarm Prevention – Brood Relocation



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# Queen Mating

- Depending on the number of Queens needed, cell raising colony or Demaree top brood box could be broken down into 2 or 3 frame nucs.
- Mini mating nucs.
  - Apidea



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  - Kieler - Small



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  - Kieler – Small
  - Queen Castle
    - Full size frames



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