QUEEN REARING AND THE SUSTAINABLE BEEKEEPER

PRACTICAL

COST EFFECTIVE

EFFICIENT

CAN SUSTAINABLE BEEKEEPERS RAISE QUEENS?

YES!

TRADITIONAL METHODS OF QUEEN REARING?

- Grafting to cell cups and bars then placing in starter colony
- Cell punching to cell bars placing in starter colony
- No-graft harvesting of eggs/cells placing on cell bars and into starter colony
- No-graft harvesting of eggs/cell on foundation and placing them in starter finisher combination colony

TRADITIONAL METHODS Requirements

- Strong colonies with balanced populations
- Selection of “Breeder Queens”
- Strong Drone Populations
- Specialized / dedicated equipment
- Grafting skills
- Multiple hive manipulations
- Timing is critical
- Expensive / Time consuming

SPECILIZED EQUIPMENT

- Grafting tools
- Cell cups w/cell bars
- Starter box (swarm box)
- Finisher colony
- Mating nuc. boxes w/frames and feeders
- Supply of bees to maintain nuc. boxes
- Colony prepared to support banked queens

SHOULD BEEKEEPERS RAISE LOCAL QUEENS

- Personal satisfaction gained
- Increased skills and knowledge regarding the honeybee
- Contributing to health of colonies
- Expanded appreciation for the complexity and importance of the honeybee
- Gained ability to share experience and knowledge with others

- Raise and maintain local stock that is acclimatized to local conditions
- Produce queens and drones to be shared with other local beekeepers
- Explore possibilities of bees that develop resistance to challenges currently experienced by the honeybee.
- Incorporate local feral traits (if available)
- Reduce the opportunity for AHB traits into our area

OBSERVERS AND CONTRIBUTORS REGARDING QUEEN REARING

- A.I. Root
- Dadant
- Rev. Langstroth
- O. H. Townsend
- Henry Allen
- G.M. Doolittle
- Laidlaw
- Page

HONEY BEE CASTE AND BASIC BIOLOGY (development time in days)

- **Queen - Egg 3 Larva 5.5 Pupa 7.5 Total Time 16**
- **Worker – Egg 3 Larva 6 Pupa 12 Total Time 21**
- **Drone – Egg 3 Larva 6.5 Pupa 14.5 Total time 24**

QUEEN'S DEVELOPEMENT?

- Worker egg of appropriate age (24 – 48 hrs.) is selected by the colony and fed copious amounts of Royal Jelly
- Cell containing egg is drawn to a shape resembling a peanut and capped at 8-9 days.
- Capping is chewed partially open by worker bees on 14 -15 days.
- Queen will emerge on day 16
- Queen prepares for mating flight
- Queen takes her mating flight
- Queen will start laying eggs
- Approx. 27 days since egg was placed in cell

PRATICAL QUEEN REARING

- MAKE SPLITS
- MAKE SPLITS
- MAKE SPLITS

MAKE A SPLIT

- Select a colony whose habits you would like to duplicate.
- Bring a five frame nuc box
- Bring five frames of drawn comb
- Select a time when bees are calm and easy to work
- Light your smoker and dress in personal protection of your choosing

MAKING THE SPLIT

- Open and enter the hive
- Locate the brood center
- Locate and isolate the queen
- Select frames of honey and pollen with attached bee and place them in the five frame nuc
- Place frames to the left and right sides of the nuc box

MAKING THE SPLIT

- Select a frame of capped and uncapped brood
- Be sure the frame has eggs that at 24 – 36 hrs. of age
- Place this frame in the center of the five frame nuc box
- Place a drawn comb on the outer left and right side of honey pollen frames.

MAKING THE SPLIT

- Shake in additional bees
- Close the nuc. box (leave it closed)
- Move nuc. box to a location two to three miles away from the parent colony
- Alternative colony manipulations can be attempted
- Be sure to have food available for the nuc. colony

MOVE OR NOT TO MOVE

- I possible move split at least two or more miles from the parent colony.

- When not possible to moves split from the home yard, select and try an alternative method.
- You must be sure to prevent the split from being robbed out or losing foraging bees back to the parent colony.

CHECK QUEEN

- After 27 days check for a laying queen
- Check for brood of all stages
- Confirm you have produced a healthy and viable laying queen. Locate her and view her body growth and development

USING A SPLIT AND THE QUEEN

- Remove the queen to place in colony needing queen
- Remove five frames from nuc and place in colony needing queen and population build up
- Remove queen and let the nuc raise a new queen
- Expand into a hive body and expand colony.

A GOOD TIME TO SPLIT COLONIES

- February - May is best time (April – May locally)
- June, July and August are expectable but feeding of 1:2 sugar and water is a must with a pollen supplement would be wise.
- Start planning ahead of time

(When colonies are over populated and time has passed for splitting, it is better to work on equalizing your colonies.)