

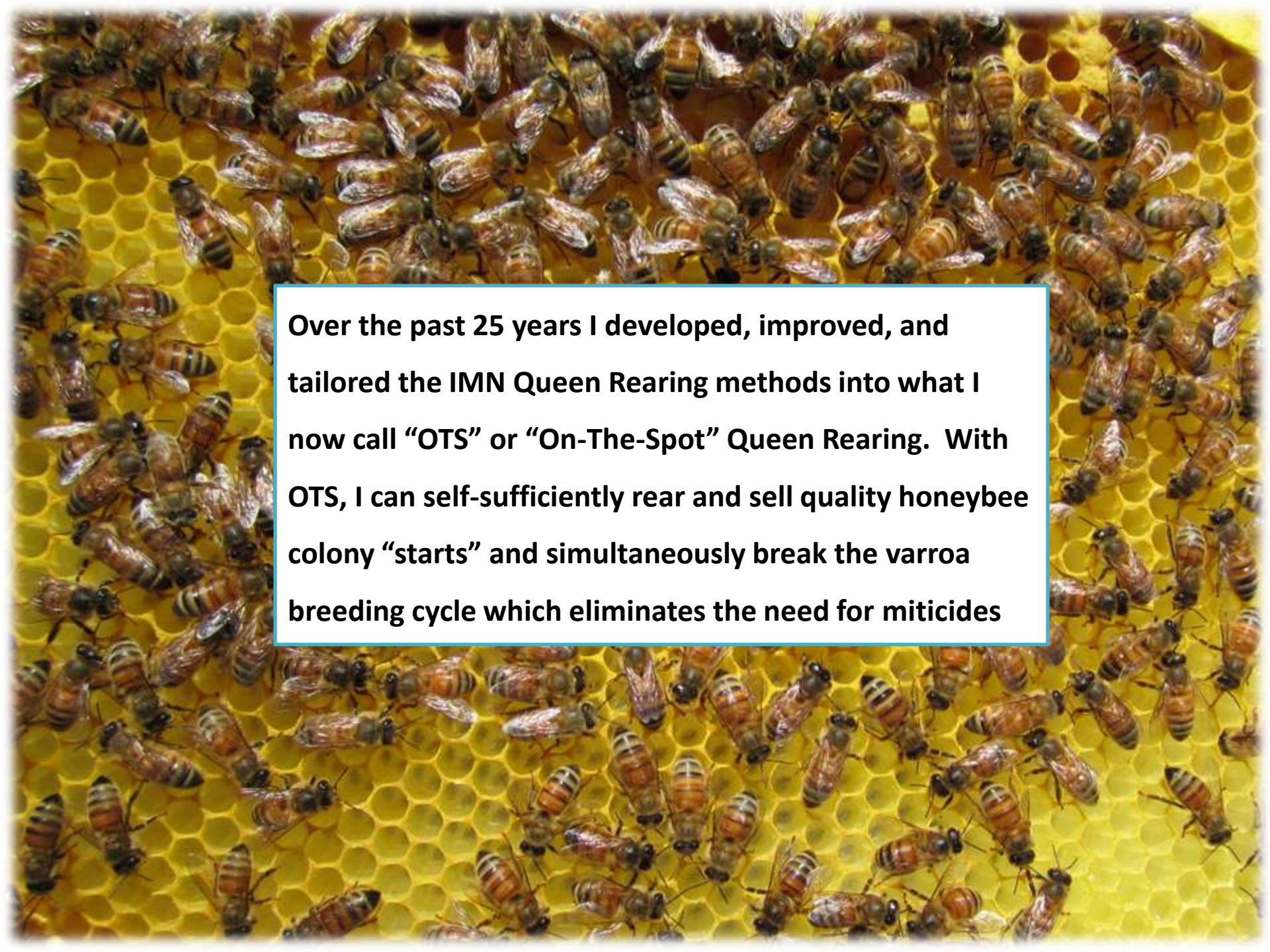
QUEEN REARING WITHOUT GRAFTING AND MITICIDE-FREE

Indiana Beekeepers Association Turkey Run Convention



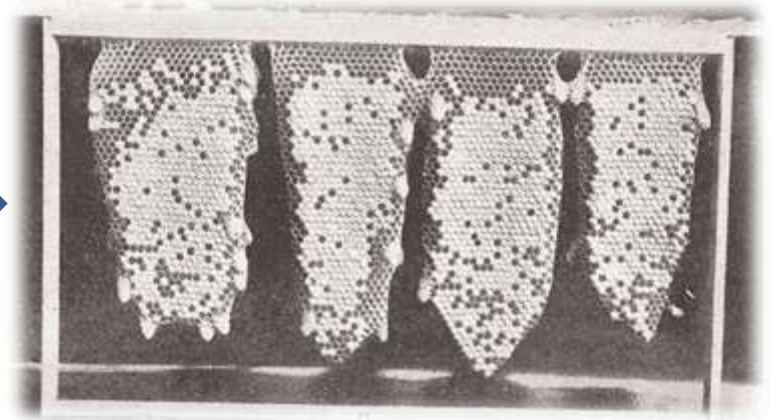
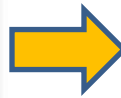
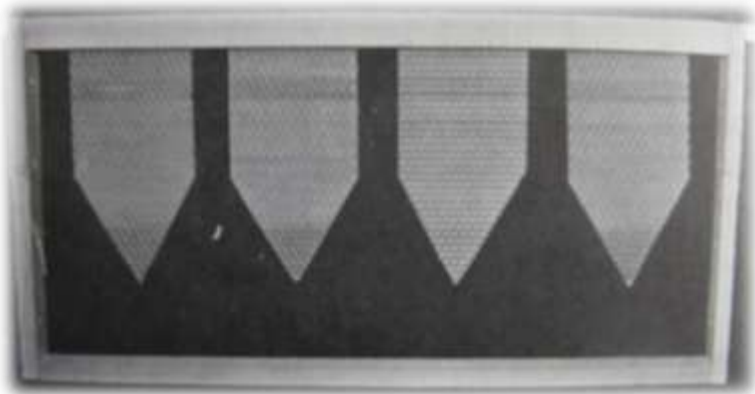
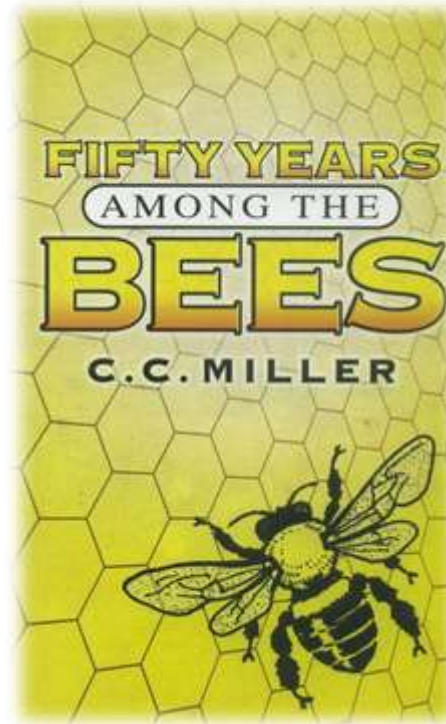
by Mel Disselkoen

Autumnal Equinox 2011

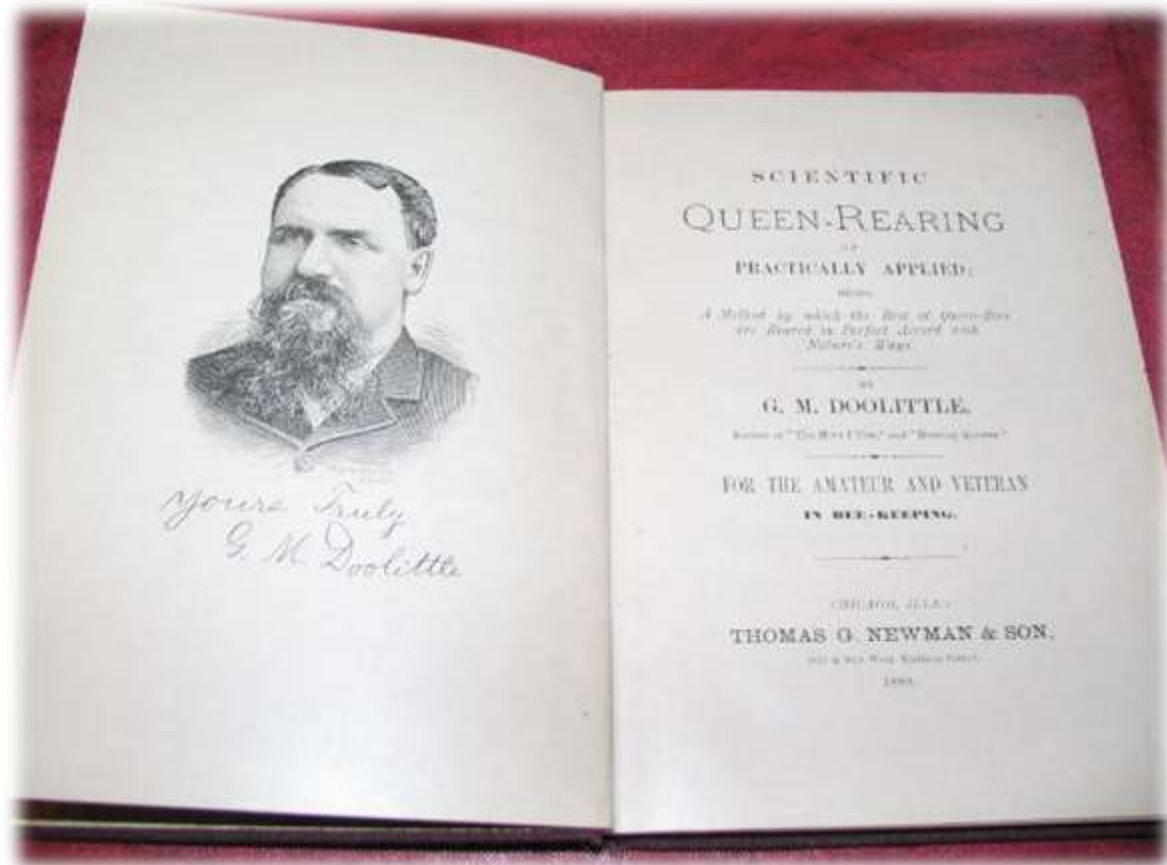


Over the past 25 years I developed, improved, and tailored the IMN Queen Rearing methods into what I now call “OTS” or “On-The-Spot” Queen Rearing. With OTS, I can self-sufficiently rear and sell quality honeybee colony “starts” and simultaneously break the varroa breeding cycle which eliminates the need for miticides

DR. C. C. MILLER



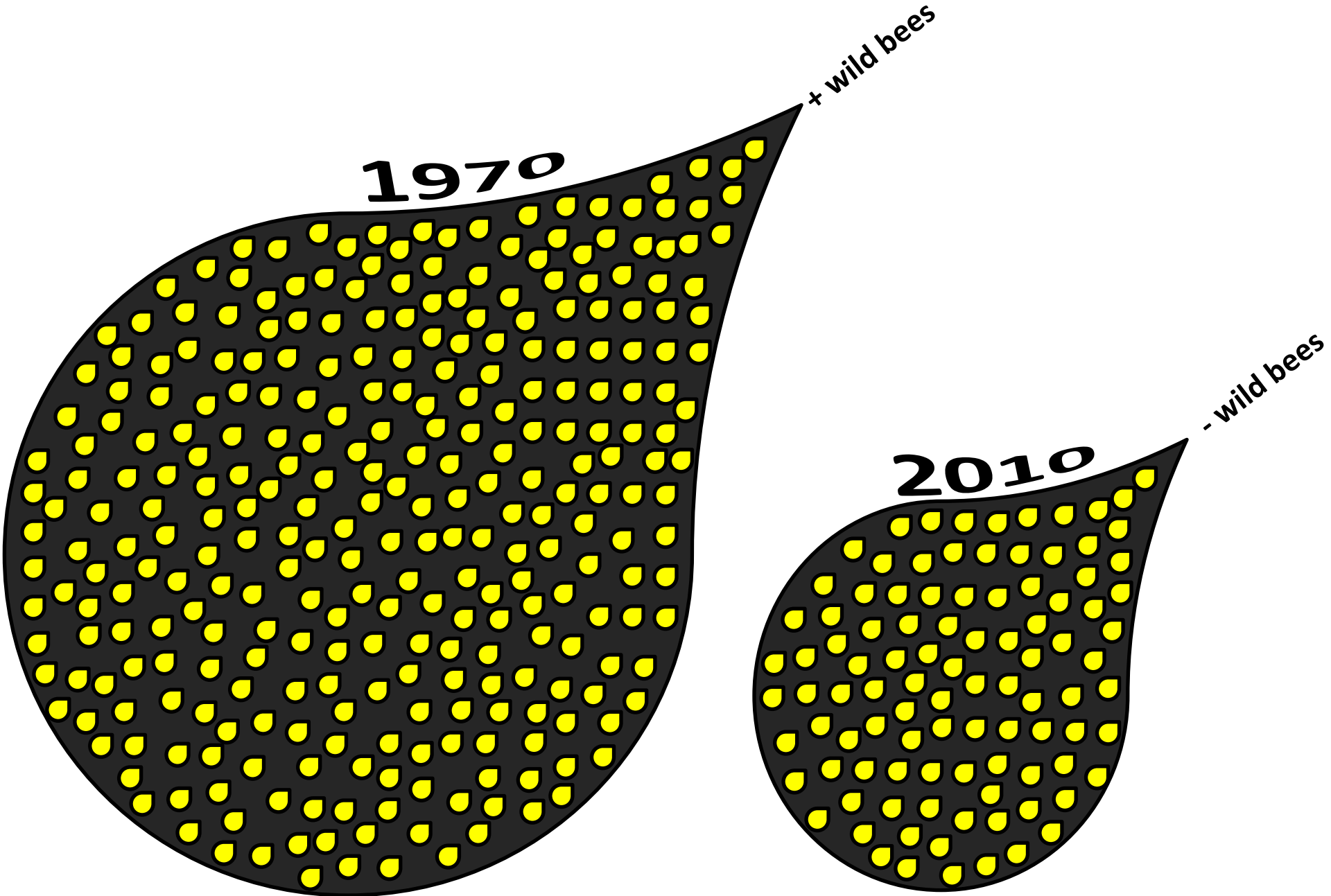
G.M. DOOLITTLE



WHY I UTILIZE OTS QUEEN REARING TO SELL BEE STOCK



QUEEN BREEDERS: GENE POOL HAS NARROWED SIGNIFICANTLY IN 40 YEARS

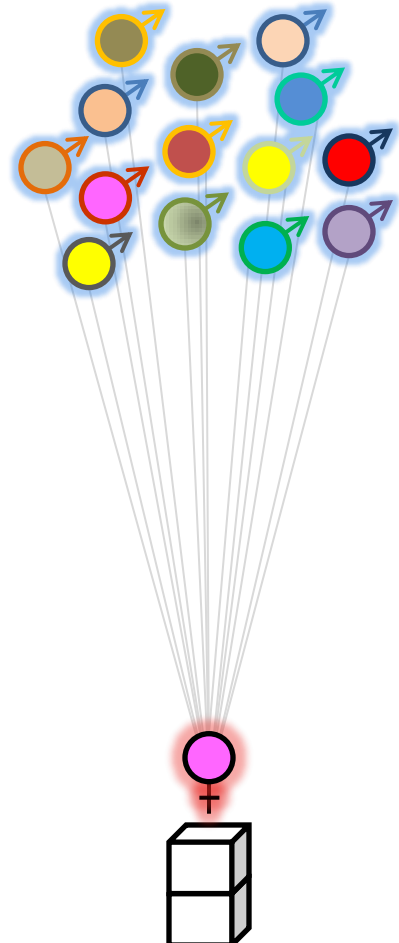
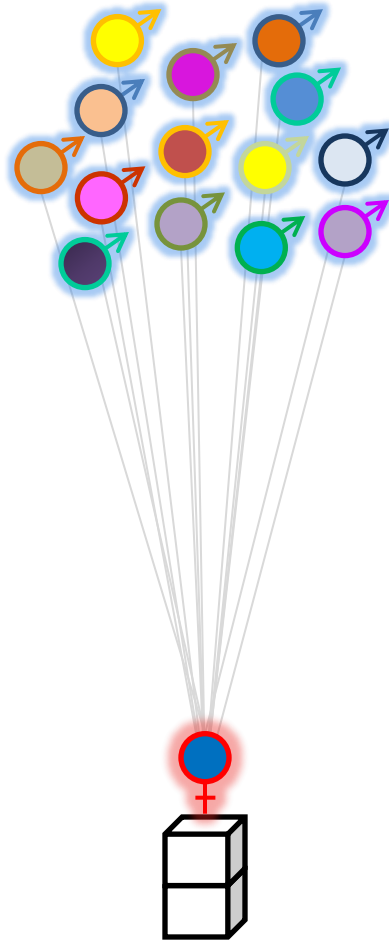
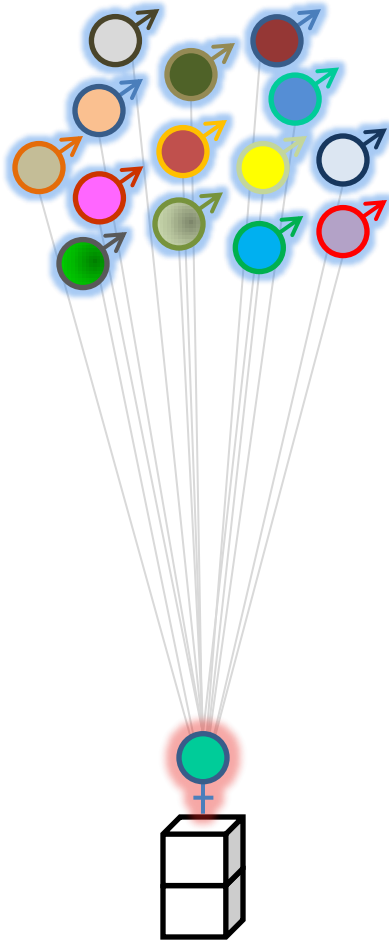
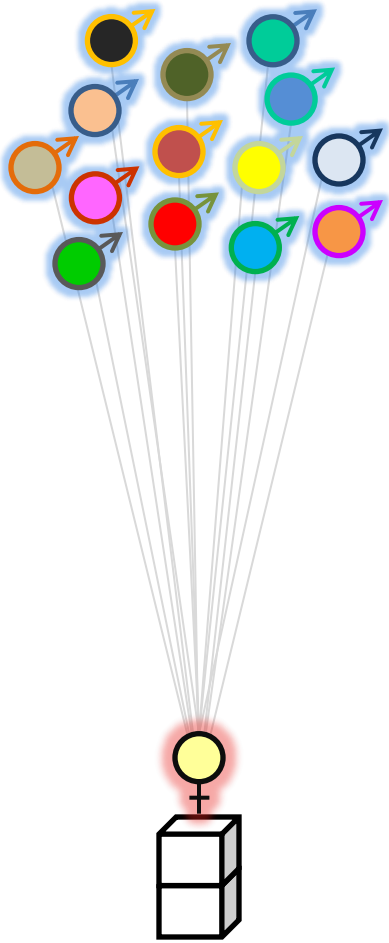


WHO'S YOUR DADDY?

There Are Fourteen Or Fifteen Fathers In Each Hive



THE ENORMITY OF THE OTS GENE POOL



FROM GRAFTING TO NOTCHING

Hands-On Wins Hands-Down

1973-1987



1980s-PRESENT



HONEYBEE GESTATION CYCLE: JULY-AUGUST 2011 (EXAMPLE)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1. Egg laid	2.
3. Egg hatches into larva	4. Open larva	5. Open larva NOTCH larvae	6. Open larva Bees build Queen Cells	7. Open larva Bees build Queen Cells	8. All cells are sealed including Queen Cell Fertile mite enters cell just before sealing	9.
10.	11.	12. <i>Make Starts</i> : You have 3 days to do this as virgin emerges on day 16			15.	16. Virgin emerges
17.	18.	19.	20.	21. All worker brood now emerges	22.	23.
24. All brood, including drones, have emerged	25.	26.	27.	28.	29.	30. Queen Mated (~14 days after emergence)
31. All brood, including drones, have emerged	1.	2.	3.	4.	5.	6.
7. Day 38: All fertile varroa mites enter day 8 of new queen's brood, killing the larvae and themselves	8.	9.	10.	11.	12.	13.

HONEYBEE GESTATION CYCLE: POINTS TO REMEMBER

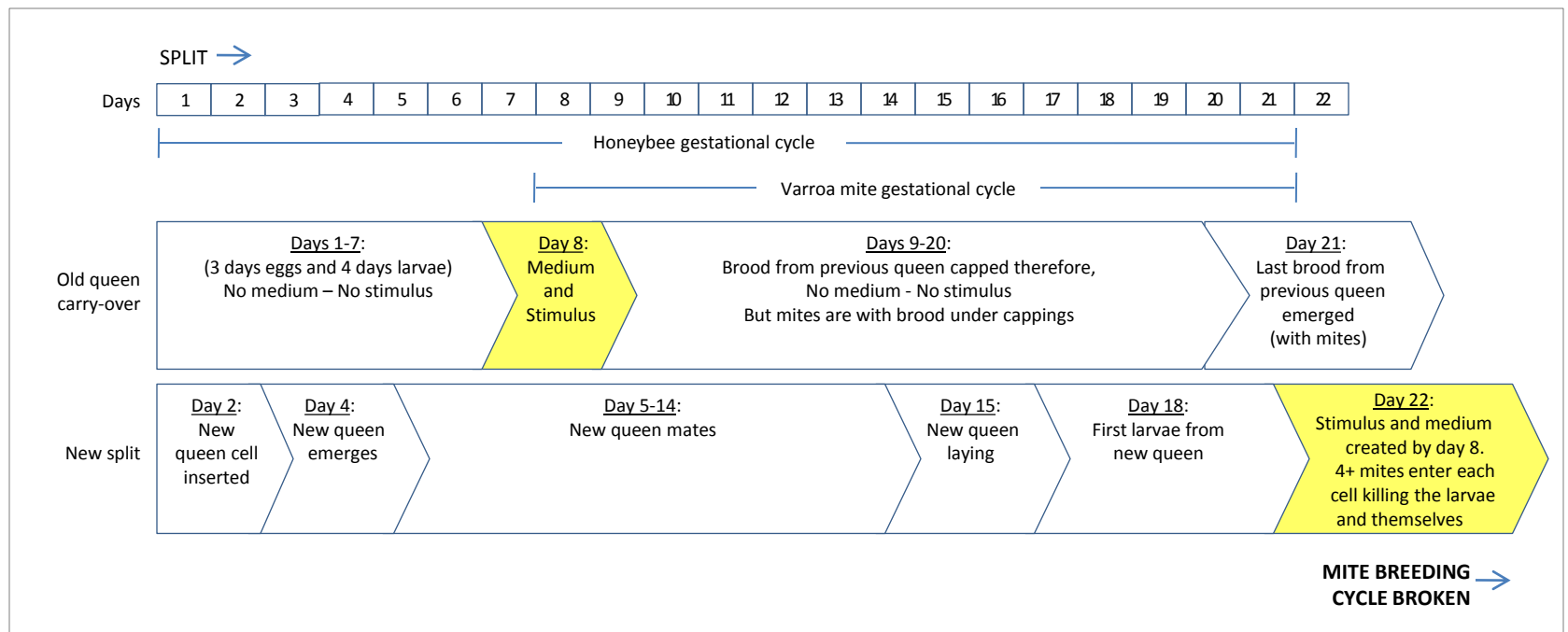
- It is possible for the bees to still raise queens 5 days after notching so allow another week for new queen to start laying
- The 2-brood-frame starts should have 3 solid frames of honey on day 38
- A 1-frame notched honey hive should have close to 100 pounds of honey on day 38

Gestation Summary

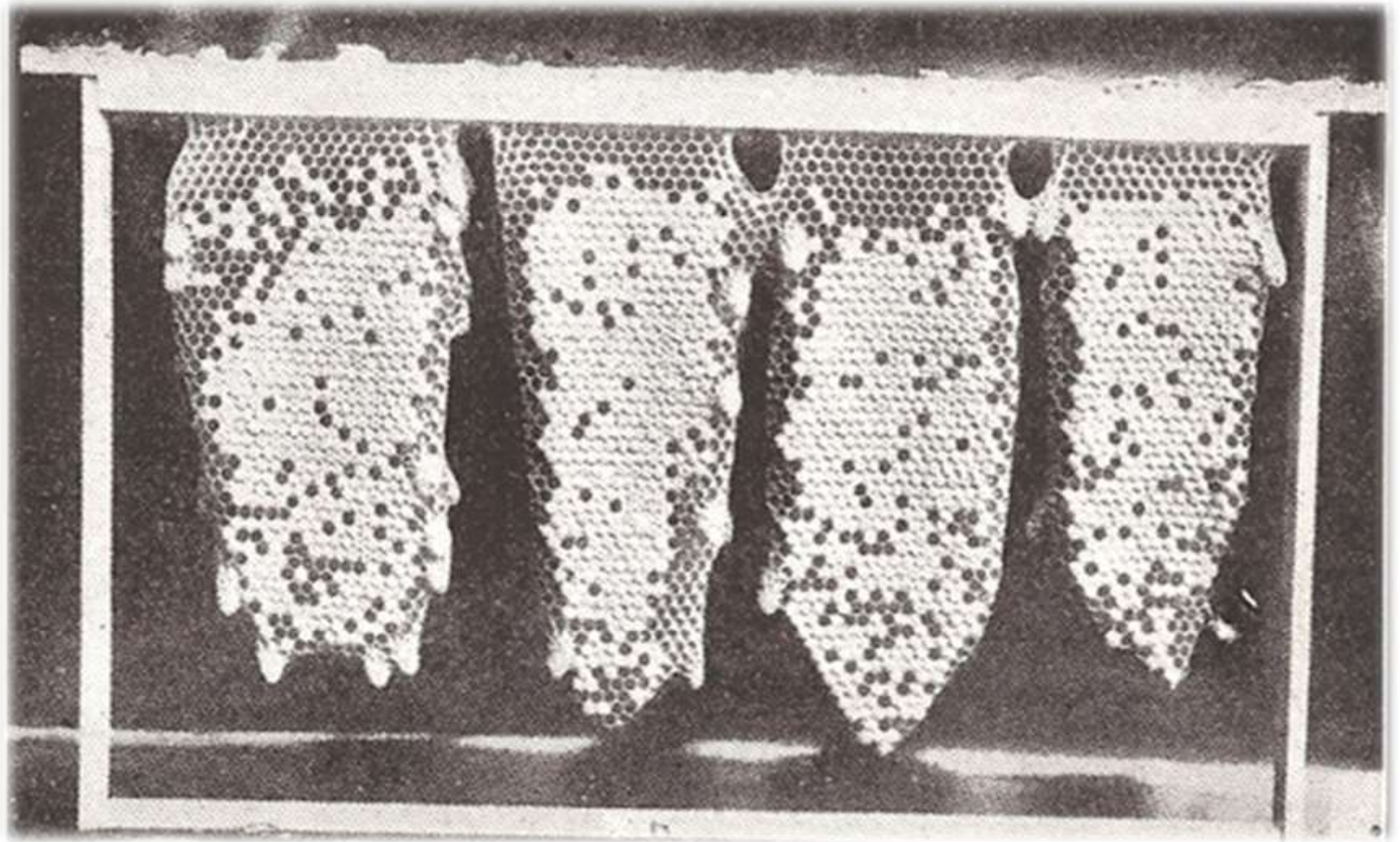
- Worker: 21 days
 - Queen: 16 days
 - All eggs hatch on the 3rd day
 - All larvae is sealed on the 8th day
- } = 5 days of open larvae

UNLOADING THE MITE: MAKING STARTS BREAKS THE NORMAL BREEDING CYCLE OF THE MITE BY INTERRUPTING BOTH THE MEDIUM AND THE STIMULUS AND THE STIMULUS

A fertile mite must have a *medium* to lay her eggs and a *stimulus* to start reproducing. The medium and stimulus are always on the 5th day of the larvae, day 8, one day before capping the cell



DR. C. C. MILLER: “Give them larvae of all ages from which to select, and they always choose that which is two days old, or younger I have never known bees to start a cell after the larvae were too old.”



POST-SOLSTICE EGG LAYING: OLD QUEENS SHUT DOWN BUT NEW QUEENS MAINTAIN PEAK BEYOND SUMMER SOLSTICE

