

On The Spot Queen Rearing

KYLE DAY | 2017 MISSOURI HONEY AMBASSADOR



About Me



Richmond, Mo
Sunny Day Honey Company



2017 Missouri Honey Ambassador
2017 Junior Beekeeper of the Year



Seeking a Bachelor's in Science
Degree in Agricultural Education at
Missouri State University

MIDWESTERN
Beekeepers
ASSOCIATION



BEEKEEPERS ASSOCIATION OF THE OZARKS

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Kyle Day: 2017 Missouri State Honey Ambassador



Reasons to Raise your own Queens

- Time
- Cost
- Quality
- Resistances & Adaptation



2016 OTS Raised Queen
Sunny Day Honey Company

Time



- Often times you needed a queen yesterday
- When you need a queen to get one ordered it can take days just to find one then the time it takes to get it to ship a queen.
- One week without a queen you can lose up to 14,000 bees that season.
- If you have queens on hand you have no problems at all.

Cost



- Supply vs. Demand
- Shipping & insurance
- It is common to pay \$20-\$25, or even more

Quality



- A commercial queen producer typically looks for eggs at two weeks and if eggs are present, the queen is banked and eventually shipped
- Research has shown that a queen that is allowed to lay up until it's 21 days old will be a better queen with better developed ovarioles than one that is banked sooner

Resistances & Adaptation

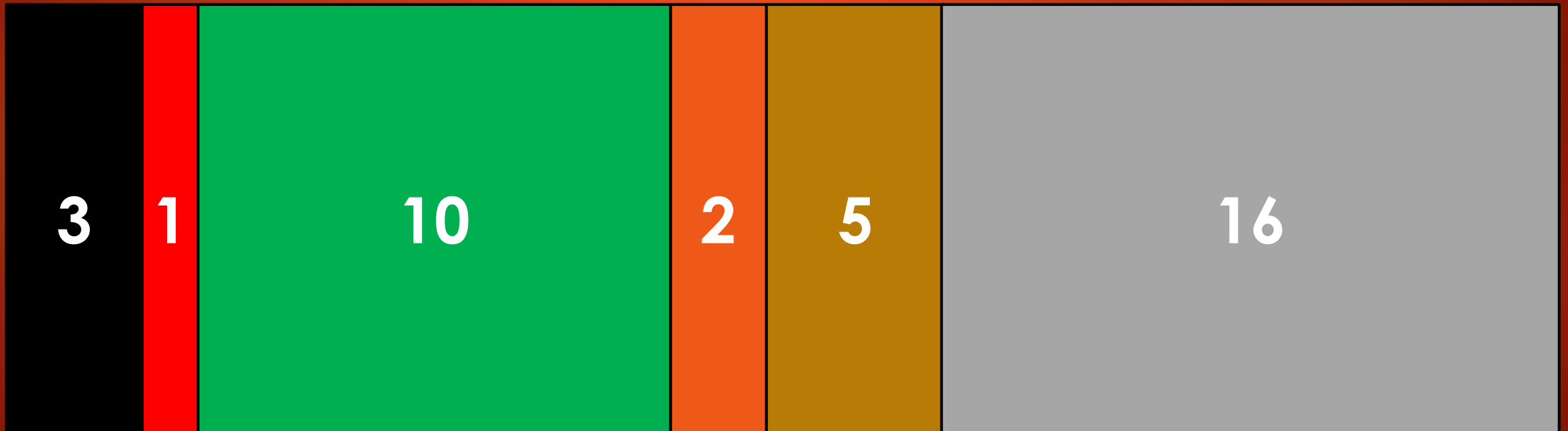


- Mite resistance is an easy trait to breed for.
- Hygienic behavior, is not difficult to breed for.
- The genetics of our queens is far too important to be left to people who don't have a stake in their success.
- Local stock colonies that are acclimated to your location

Queen Rearing Time Intervals

■ Egg ■ Larvae ■ Cell ■ Finish ■ Pre-Flights ■ Mating

Queen Emergence



Time (Days)

The two single factors that changed my operation were; starting by purchasing solid stock, and learning proficiency in queen rearing. Learning queen rearing changed my expensive hobby into a nice side income. Stay passionate about it as passion will keep your sails filled to push on when you encounter rough seas. Stay at it, and best of luck to you.

- Cory Stevens

Stevens Bee Company
Bloomfield, Mo

The Inventor Of OTS

Mel Disselkoen

Non-grafting queen rearing method

“The International Mating Nuc, Inc.”



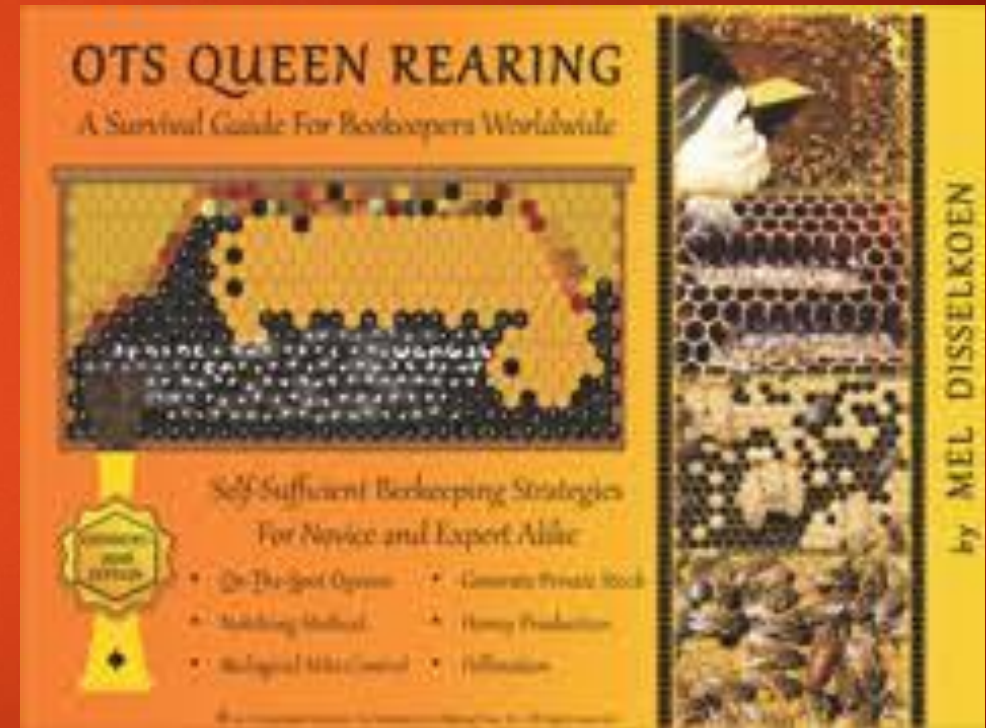
“The OTS Queen Rearing System”

A Manual For Beekeepers Worldwide

2016 Expanded Edition

\$75.99 + Free Shipping

www.mdasplitter.com



“The OTS Queen Rearing System”

A Manual For Beekeepers Worldwide

\$49.99



WHY OTS?

- Simplifies management
- Treatment-free varroa management
- Guarantees swarm prevention
- Queen rearing without grafting
- Huge potentials for expansion 1:10 by fall
- Options For honey production, expansion of hives, nuc sales, or a combination of the three.

WHY I Choose OTS?

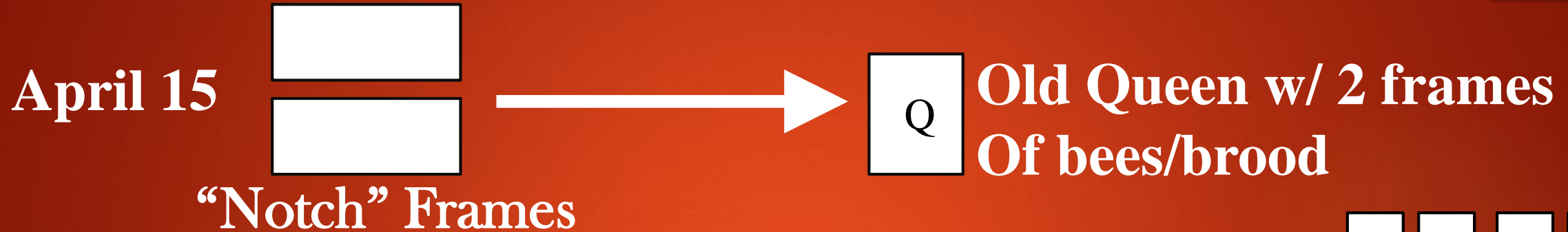
- Single Hive splitting
- Could choose how many queens I wanted to raise
- Didn't need to buy grafting equipment or lose out on honey production
- I learned basic queen rearing skills

“Novice beekeepers can raise the best queens in the world”. Mel Disselkoen author, OTS Queen Rearing

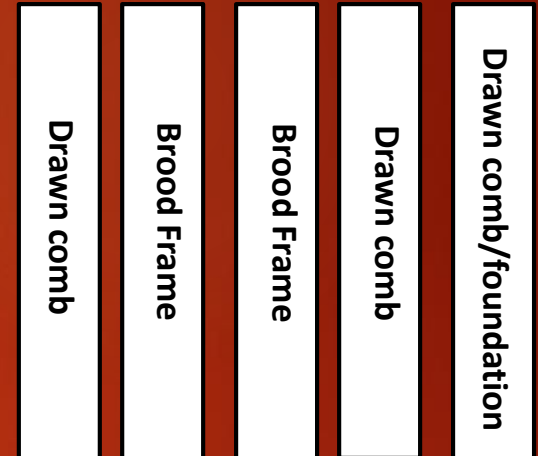
Making Mel's System Work in Missouri

- Starts with overwintered colonies
- Need 8 frames of brood to initiate
- Start Date is about one week before swarm season
“normally” starts
- Mel= May 1st
- Kyle= April 15th (Weather???)

First Steps... April 15th



1. Make a “reverse” Split
2. Remove the Queen and two frames of brood into a nuc box.

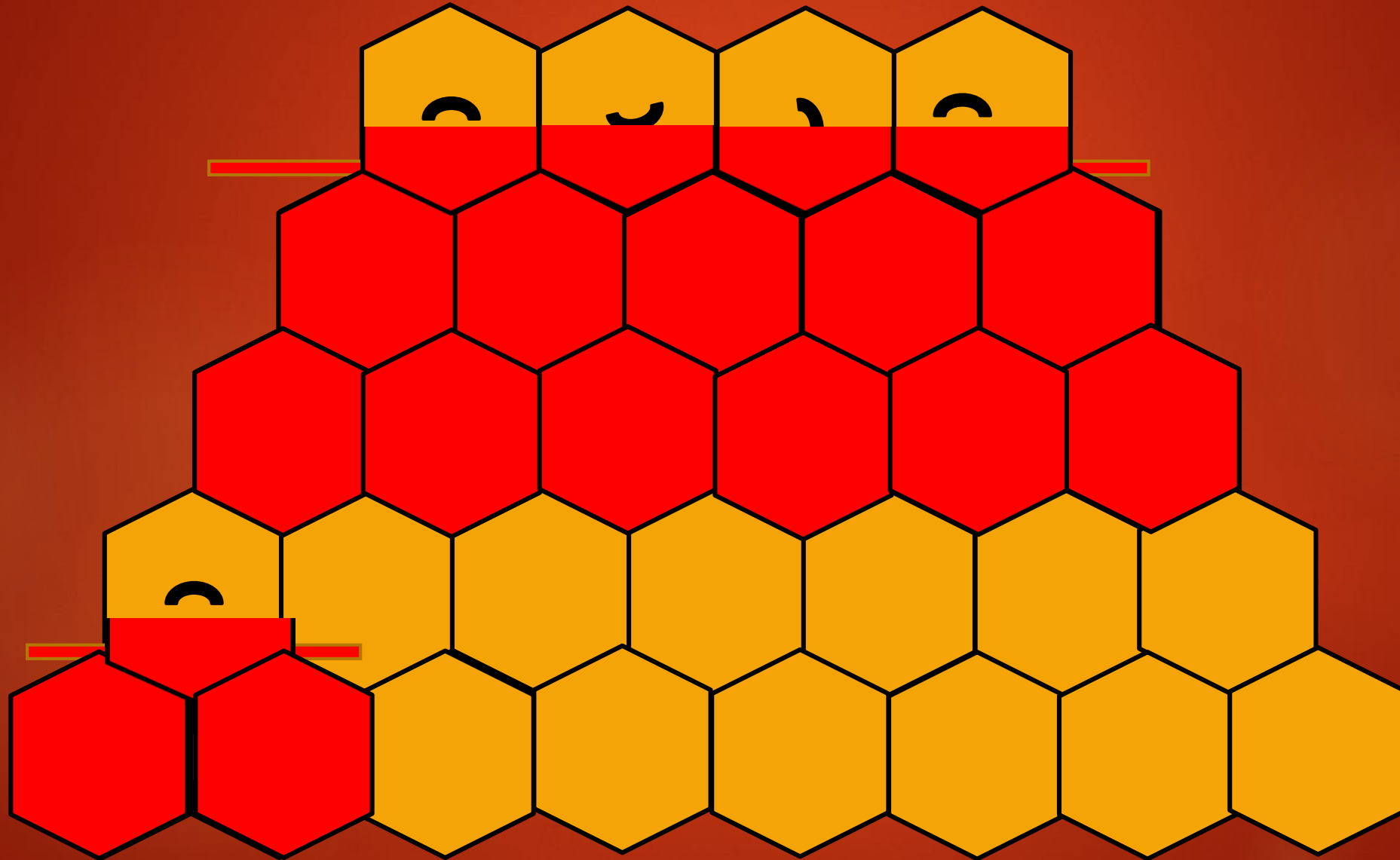


1. “Notch” Frames of open brood in the remnant colony which is now queenless.
2. Leave them to make their own queen cells.

What is “Notching”?



Notching Frame



Mark Frames w/ Notch Brood



Why “Notch”

- Queen cells have to hang vertically.
- Notching, creates a vacancy below the larvae
- Notching specific frames helps the beekeeper to manage the next step of moving frames into nuc boxes.

OTS Timeline- April 22nd

- 1 week later Choose destiny of this colony
- Plan A: Divide into three nucs. Two frames of brood each.
- **Plan B: Keep intact to make honey**

Intent is to squish all but two queen cells.

- Two cells in each nuc.
- Two cells in the remnant hive.

OTS Timeline- April 22nd

April 15



Old Queen
w/
2 frames

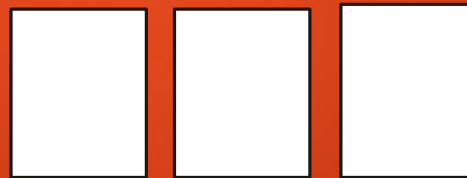


April
22nd



Honey

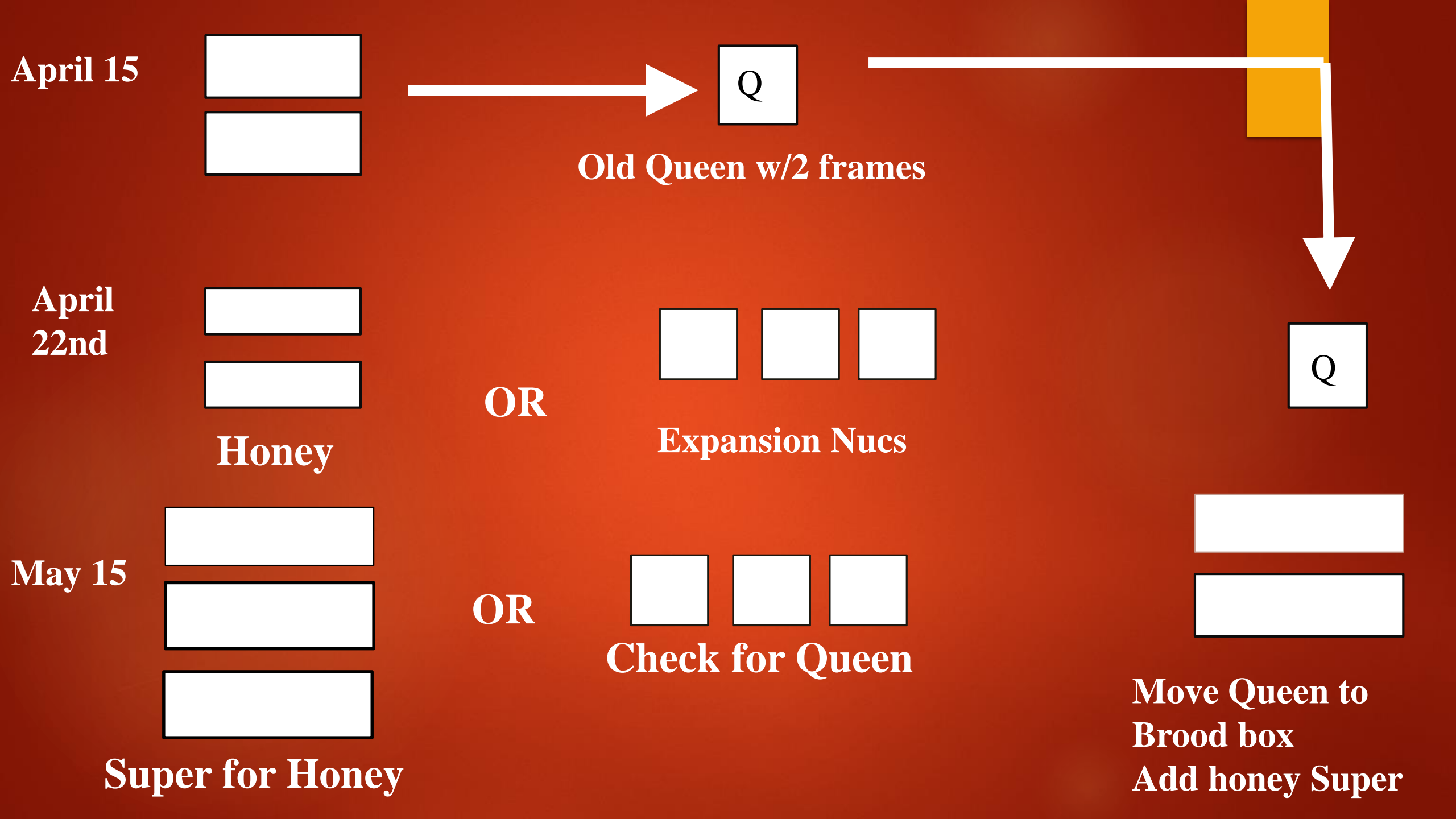
OR



Expansion Nucs

OTS Timeline- April 22nd

- April 15th- Make a reverse split, queen to nuc box with two frames of brood.
- April 22nd- Choose to make honey, or split into nucs, squish excess queen cells
- May 15- Check to insure queen was mated
- - Super remnant hive and move old queen nuc into brood box and super



OLD QUEEN



- Reverse split made on April 15th
Does not need to be moved to a new yard
Plan on feeding
- By May 15th, Likely ready to be moved to a single brood box with super
- Potential to make honey still present
Or, nuc can be sold as a locally-raised colony.

OTS Benefits

- Reverse split guarantees swarm prevention
- Queenless period establishes a brood break, interrupts varroa reproduction
- Brood Break= Less larvae to feed= Nectar stored as honey
- Plan A- Three nucs with new queens, one nuc with old queen.
- Plan B- a nuc with an old queen and a colony ready to make honey with a new queen.

OTS Timeline- June 15th

- Remnant Hive= Super, keep on foraging nectar

Move existing queen to a nuc

Foragers will keep on foraging

Notch Frames, let them make Queen cells

Three nucs= Likely need to move to single brood box, or a super or second brood box

** I would suggest a brood box as its possible to split these nucs again for more

OTS Timeline- June 15th , Continued

- Old queen= time to “dispatch” her
- (What if she is a really good queen?)
- Notch Frames
- Colony raises queen cells
- Foragers continue to forage for nectar

April 15



April 22nd



Honey

OR

Old Queen w/2 frames



Expansion Nucs



May 15



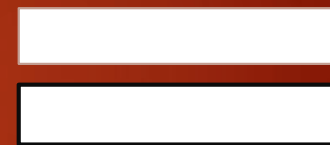
Super for Honey

OR

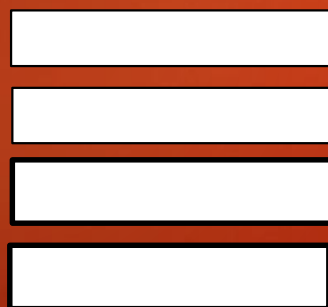


Check for Queen

Move Queen to
Brood box
Add honey Super



June 15



OR



Move to Brood box(s)

Dispatch Queen
Notch Frames



Super for honey Move Q to nuc

OTS Timeline- June 22nd

- Split remnant hive into two other nucs
So we have the existing queen in a nuc
We have two nucs with queen cells We
have the full size colony with queen cell
and honey super Foragers keep bringing in
Nectar
- Nucs keep growing

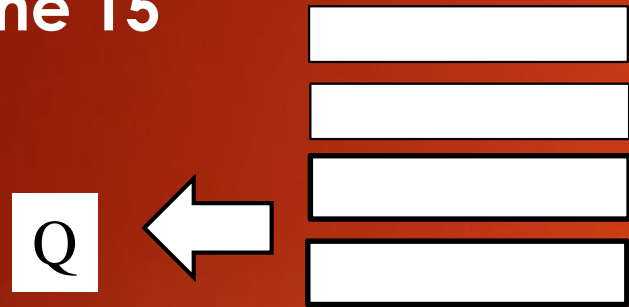
OTS Timeline- June 22nd

- Queenless Colony (Where we dispatched old queen)
 - Can Be split into three nucs with queen cells
 - Full size colony with queen cells and supers

OTS Timeline- June 22nd



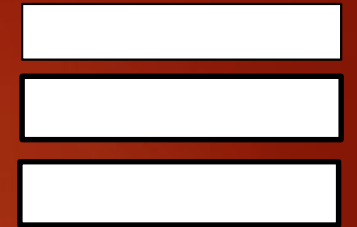
June 15



Super for honey Move Q to nuc



Move to Brood box(s)

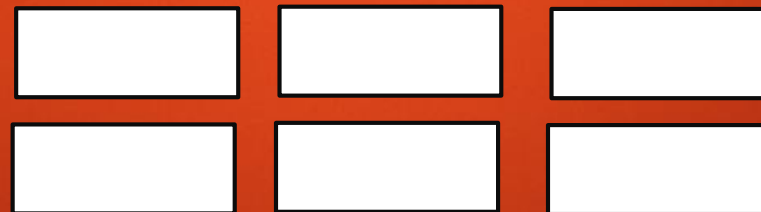


Dispatch Queen
Notch Frames

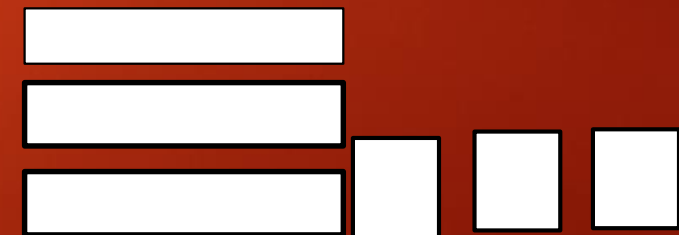
June 22



Split into 4 hives



Still growing add room as
Needed



Split into 4 hives

OTS Timeline- July 15th

Harvest Honey from remnant hive and hive that had the dispatched queen

Equalize the honey producing with the nucs.

Each of these colonies can make 4 nucs each

** Expansion of one overwintered hive into eight nucs, ready for overwintering. While still getting a honey crop

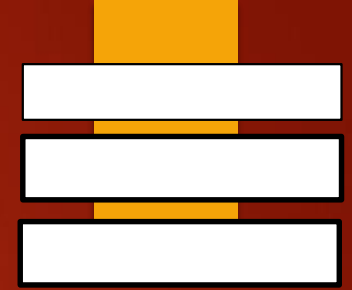
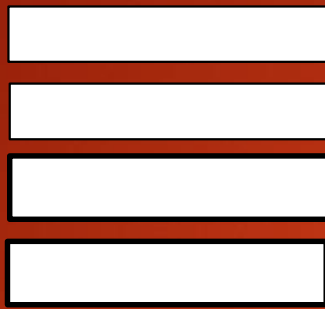
OTS Timeline- July 15th , Continued

Three nucs/singles can be split in the same manner into six nucs.

With dispatched queen colony, now divided into four nucs,

We have an expansion of one overwintered colony into ten nucs, ready to be overwintered.

June 15



Q

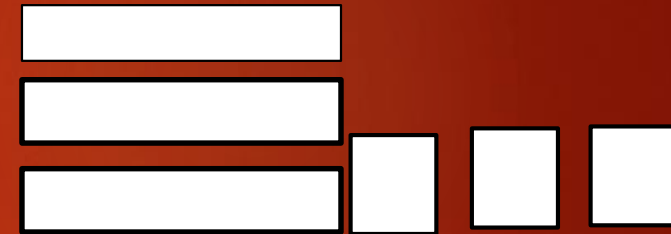
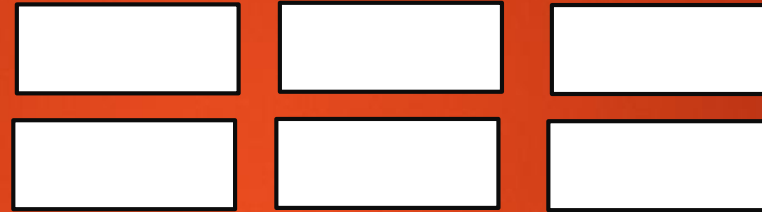
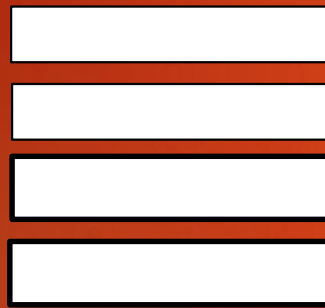


Super for honey Move Q to nuc

Move to Brood box(s)

Dispatch Queen
Notch Frames

June 22



Q

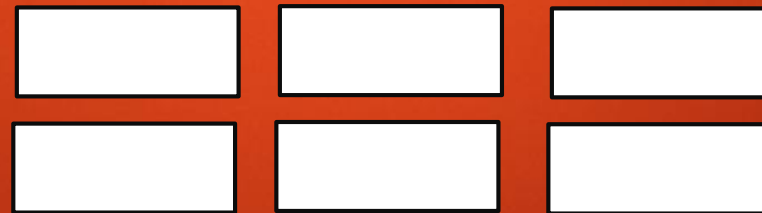


Split into 4 hives

Still growing add room as
Needed

Split into 4 hives

July 15



Harvest Honey
Check for queen
Equalize

Divide and split into
6 singles

Harvest Honey
Check for queen
Equalize



Simple Overview

- Part 1
 - Remove the existing queen
 - Notch Frames to encourage queen cells
- Part 2
 - Return a week later and removed excess cells, only leave two per hive/nuc
 - Divide frames into nucs or a main hive
- Part 3
 - Return after four weeks to insure mated queens
- Part 4
 - Repeat

Downside

- Work is streamlined, management is systematized, but you still have to keep accurate records and stay on schedule.
- BUT- hive management is more efficient, more hives can be managed in the same amount of time
- Must be good at finding queens(Marked Queens)
- Seeing 36 hour old larva
- Need 8 frames of brood (How fast does your hives build up in the spring)
- Need for more equipment = \$\$\$ = Storage

My Conclusions

- Split made in April was successful
- 1 out of two splits made in June was successful but SHB were everywhere
- Very easy to get in over your head
- Schedule is flexible as long as the colony hasn't swarmed
- Possible if a new beekeeper bought Nucs or packages in April, could use this system to make more Nucs in June or July