### **Swarm Prevention (& Control?)**

For the
Prince William Regional Beekeepers
Association (PWRBA)
March 10, 2015

### What's a Swarm?









photos- karla eisen, R. Wright- bottom left

## Bee Swarm Coming Home



### Why do honeybees swarm?

- REPRODUCTION- natural process
- Brood box is crowded
- No room for eggs
- Too much nectar in brood area
- Queen pheromone not well dispersed

#### **Signs of Swarm Preparations**

- Drone Brood
- Drones Flying
- Queen Cells
- After a Swarm?
  - No eggs
  - Little to no larvae
  - Many frames of nectar for weeks



#### What Can You Do About It?

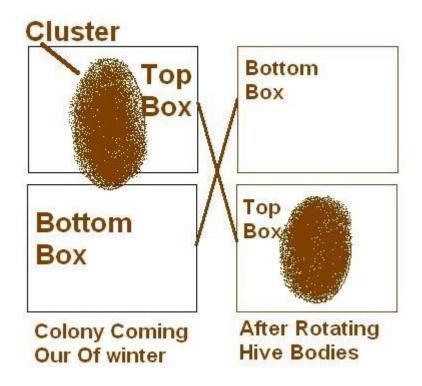
- Work with the bees natural instincts Be 1 step AHEAD of colony
- DELAY & REDIRECT
- Give More Space
  - Early Supering
  - Reverse Hive Bodies
  - Pull out some frames and replace (comb is best)
- Change Queen Dynamics
  - Take out Queen Cells &/or Queen
  - Give them a New Mom (Re Queen)
  - Clip Queen Wing
- Really Mix Up their Space & Change Queen Dynamics (Chris, Tim)
  - Artificial Swarm and Snellgrove Method

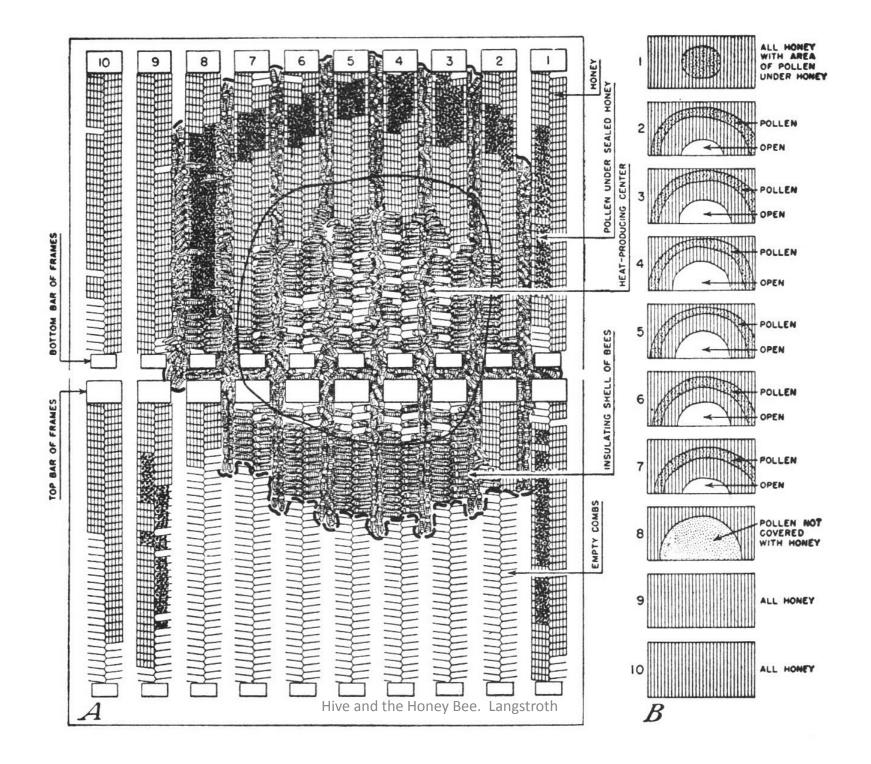
#### Give More Space – Add Supers Early

- Provides room for the bees to expand upward
   & store nectar
- Similar to reversing, but no danger of breaking up brood nest
- Timing?
- Drawn Comb or Foundation?
- Put new super underneath full ones

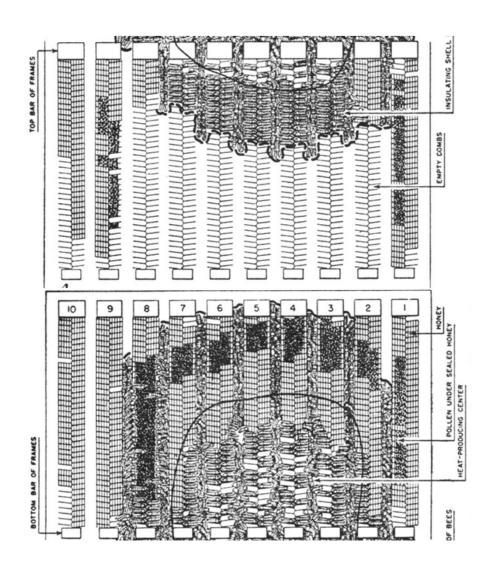
#### **Give More Space- Reverse Hive Bodies**

- Provides space for the bees to move up
- DO NOT BREAK UP THE CLUSTER Especially when cold (March/April)





Breaking up the cluster-**NOT** what you want in Spring



## Reversing Hive Bodies www.BeeSource.com wisdom

• Don't do it before the maples bloom. *If I've seen brood in the bottom box- at all.* 

## When Swarm Is Imminent Interacting Variables

- To Stop a FIRE Remove 1 of 3
  - Oxygen
  - Fuel
  - Heat

- To Prevent a Swarm
   Remove 1 of 3
  - Queen
  - Flying Bees (foragers)
  - Brood and Nurse Bees

# Change Queen Dynamics A New Mom- Replace Queen

Are Queens Available? From Where? When?

 Never take out old queen before you have the new one in hand

 Queens with Support Staff available in that OVERWINTERED NUC!

### Clip Queen Wing

 Clipped wing Queen will swarm, but will not be successful as Queen can't fly

Usually bees will return to hive

 Delay Tactic- Buys time- Bees should wait for new virgin Queen to emerge from cell before swarming again (+/- 8 days)

#### **Cut Out Queen Cells**

- Can delay swarming significantly or stop it
- Only truly effective if done every 8 days
- Consider Timing & What you See
  - Capped Q cells- virtually impossible to stop swarm from issuing
  - Capped Q cells- colony may have already swarmed
  - Swarm cups with eggs a "little" more time to manage
  - Swarm cups empty- early signs

#### Be Thoughtful about Your Actions (Always)

- Destroying swarm cells can result in a queenless colony
- Do you see Queen or Eggs?
- Has colony already swarmed & you destroyed all the replacement cells?



Photo credit- Karla Eisen



Photo courtesy of Mike Church

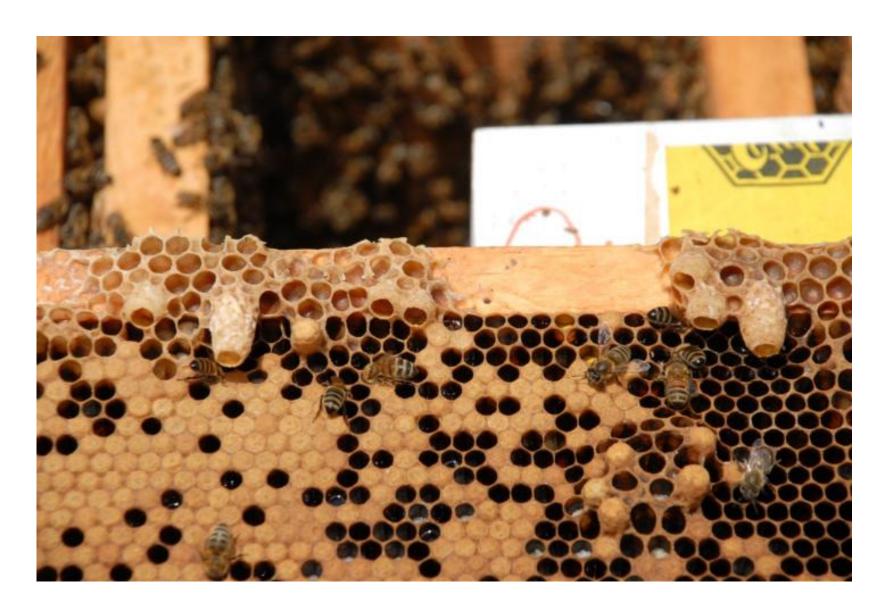




Photo credit-Karla Eisen

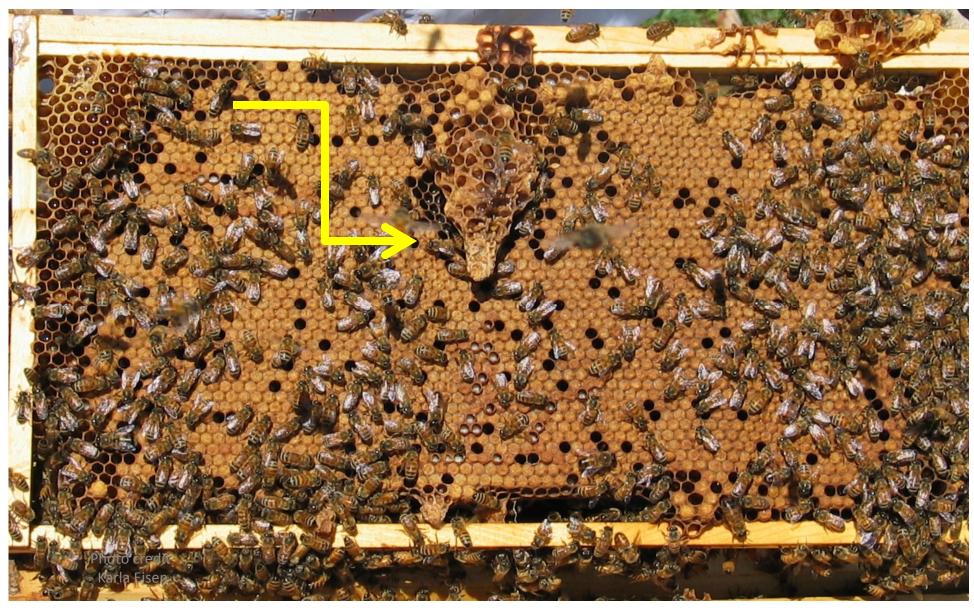


Photo credit- Chris Hewitt



Photo, Mark Dykes, Univ. of FL

## Swarm or Supercedure? (4/9/2006)





#### **Put Queen Cells to Use**

- Queen Castle or Mating Nuc with 2 or 3 frames in each compartment
- Each compartment needs at least 1 Queen Cell
- Takes about 3-4 weeks to have laying queens
- Best results during nectar flow.
   FEED when cells are uncapped or if using foundation

# Make a Nuc Use Colony Queen or Queen Cells



## Average Development Time 3\*5\*8\*5\*3

3 days egg + 5 days larva + 8 days sealed = 16 days (queen) + 5 days = 21 (workers) + 3 days = 24 (drones)

	Worker	Queen	Drone
	Days		
Egg	3	3	3
Larval Stage	5 - 6	5	6 <sup>1</sup> / <sub>2</sub>
Pupal Stage	12	7 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>
Total Development Time	21 +/-	16 +/-	24 +/-

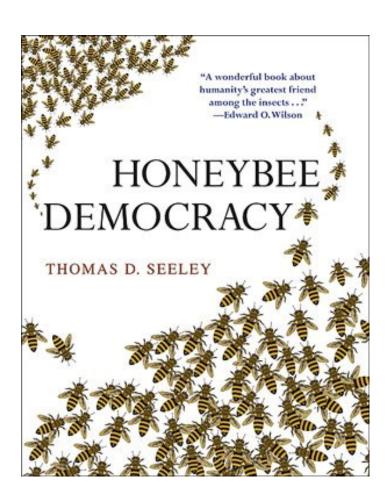
Modified from No VA Teachers Consortium Class Materials

#### **Last Thoughts on Swarm Cells**

• If after swarm prevention strategies are exhausted (especially culling out swarm cells continually), swarming preparations continue, especially if more cells are built again & again, then consider looking at those hives with a different eye... Swarming may be the hive's attempt to requeen.

## Dr. Tom Seeley, Cornell University





# Go to Bee Meetings & Hang Around Beeks Smarter Than You



Photo- Karla Eisen