

1st Annual NE OH Practical Beekeeping
Conference

Sustainable Beekeeping

(so you don't have to buy bees or honey)



Trish Harness
Chickabuzz.com

Welcome from Trish the Beekeeper!

- Started in 2015 with a swarm
- Expanded over time to have ~30 hives
- Use 12.75" tall frames, single brood box
- Around 80% survival
- Prez of Geauga Beekeepers Club
- Want to share the joy of bees and spare some of the pain...



Sustainable Beekeeping

- Don't have to buy bees or honey
- How? Mite management – check!
- Inspection records
- Set up hives so ready for what's next
- Manage for higher bee populations –
bee immune system



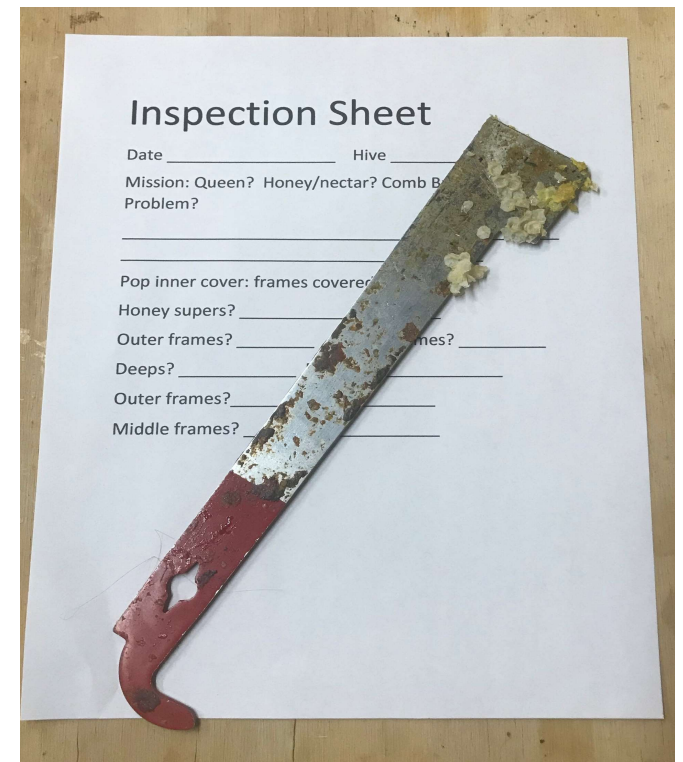
Sustainable Beekeeping

- Don't have to buy bees or honey
- How? Mite management – check!
- Inspection records
- Set up hives so ready for what's next
- Manage for higher bee populations
- For a single hive, and across the apiary



Sustainable hive management

- Hive Inspections! What's your mission?



Sustainable hive management

- Hive Inspections! What's your mission?
- Hive State: Growing or Mature?



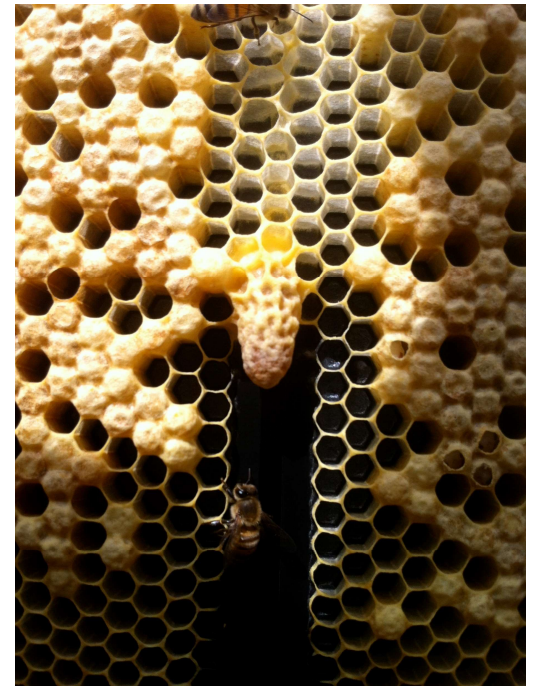
Sustainable hive management

- Hive State: Growing!!!
- What's a growing hive?
 - Queen is new
 - Not all comb drawn out



Sustainable hive management

- Hive State: Growing!!!
- New Queen Quality: Suspect until hits 6 weeks



Sustainable hive management

- Hive State: Growing!!!
- New Queen Quality: Suspect until hits 6 weeks
 - Only way to detect is weekly check
 - Cost of being wrong about queen:
NO POPULATION GROWTH!
(bee immune system = bees)



Sustainable hive management

- Hive State: Growing!!!
- New Queen Quality: Suspect until hits 6 weeks
 - Only way to detect is weekly check
 - Cost of being wrong about queen:
NO POPULATION GROWTH!
For rest of season.



Sustainable hive management

- Hive State: Growing!!!
- New Queen Quality: Suspect until hits 6 weeks
 - Only way to detect is weekly check
- Inspection Sheet Notes:



Sustainable hive management

- Hive State: Growing!!!
- New Queen Quality: Suspect until hits 6 weeks
 - Only way to detect is weekly check
- Inspection Sheet Notes:
 - Note “Danger Zone” dates
 - Note frame # and type of brood



Sustainable hive management



Egg : 3 d



Larvae / open brood:
6 d



Capped:
12 d

Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
 - Only way to detect is weekly checks
- Inspection Sheet Notes:
 - Note “Danger Zone” dates
 - Note frame # and type of brood
 - Frame 2-4 have all necessary info
 - Brood nest is same on both sides



Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
 - Only way to detect is weekly checks
- BEST TRICK EVER if concerned about whether have queen:
 - Add indicator frame from donor hive!!!
- Indicator frame added at Day 0



Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
 - Only way to detect is weekly checks
- BEST TRICK EVER if concerned about whether have queen:
 - Add **indicator frame** from donor hive!!!
- Indicator frame added at Day 0
- Check for answer about queen at Day 7-10



Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!



Susta

- Hive S
- Queen
- Ensurr



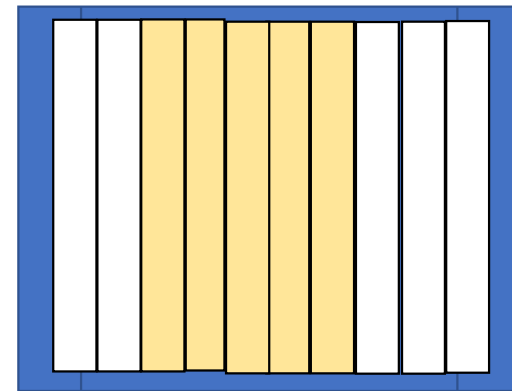
Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!



Sustainable hive management

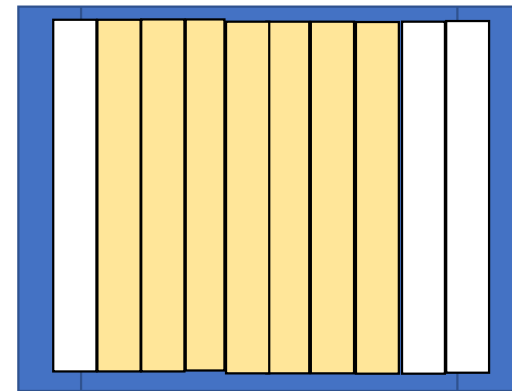
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!



Nuc or Split

Sustainable hive management

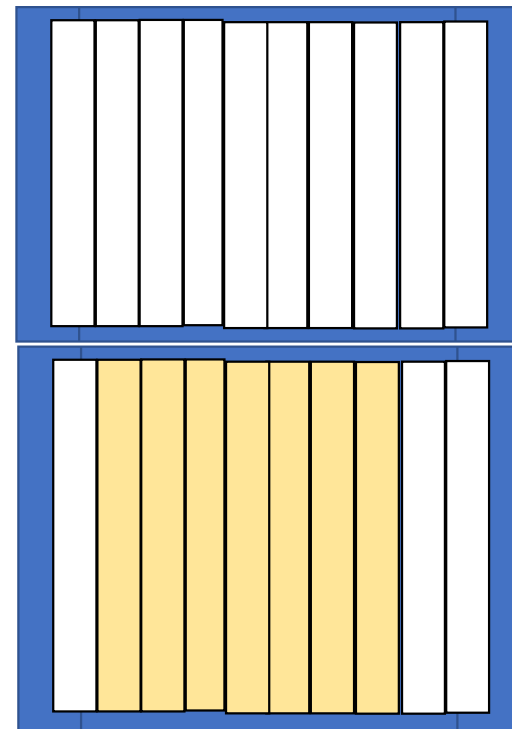
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!



Nuc or Split

Sustainable hive management

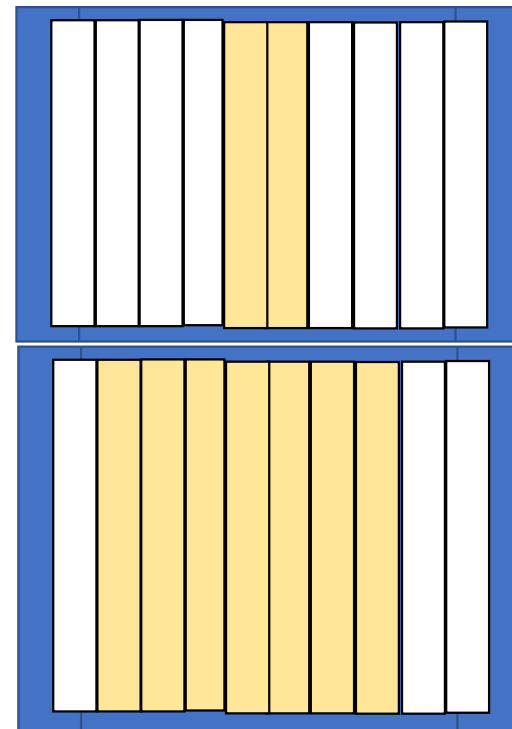
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!



Nuc or Split

Sustainable hive management

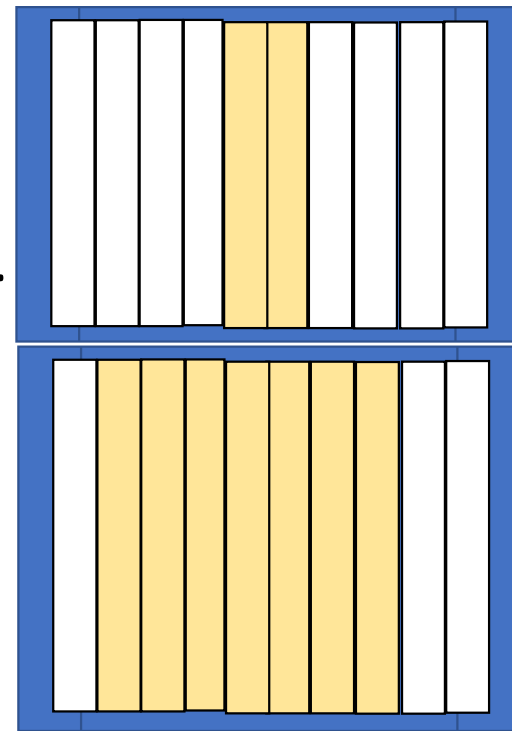
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!



Nuc or Split

Sustainable hive management

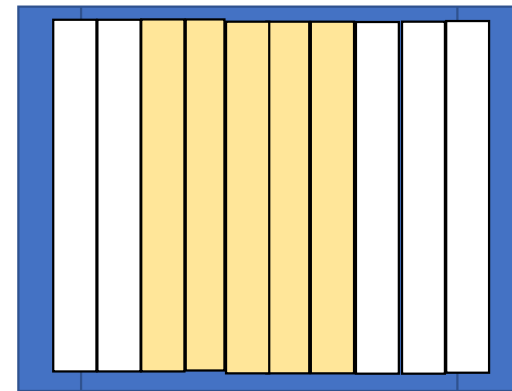
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Uh oh.... No change for several weeks...



Nuc or Split

Sustainable hive management

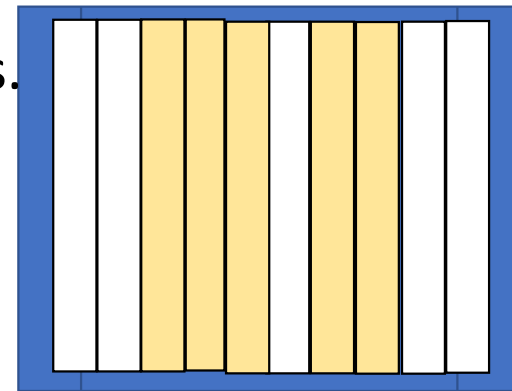
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...



Nuc or Split

Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.



Nuc or Split

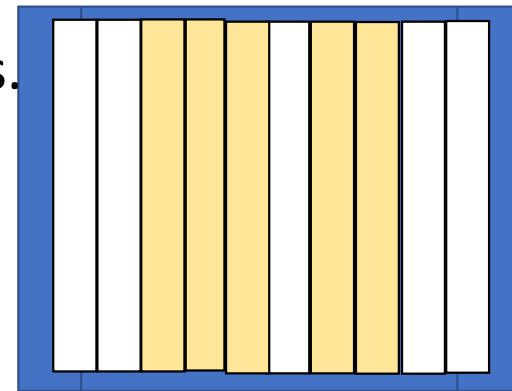
Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.



Sustainable hive management

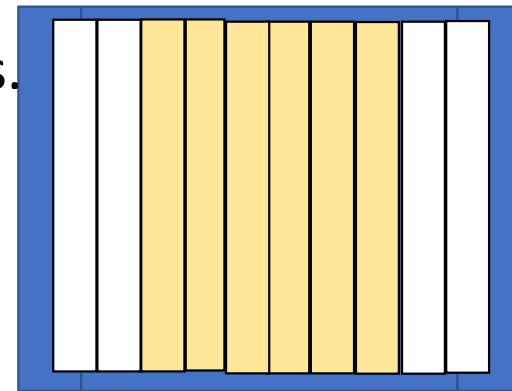
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.



Nuc or Split

Sustainable hive management

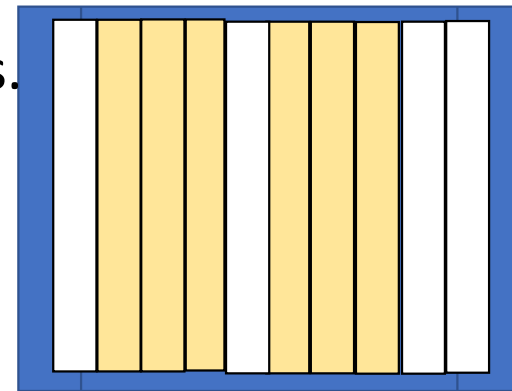
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.



Nuc or Split

Sustainable hive management

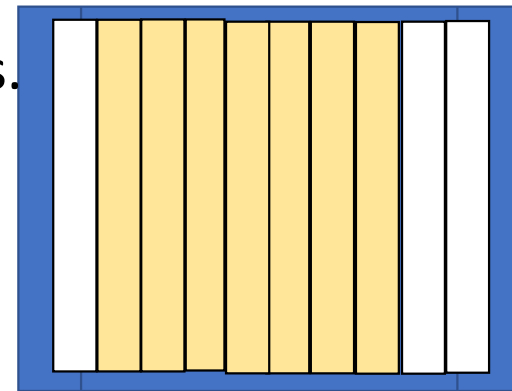
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.



Nuc or Split

Sustainable hive management

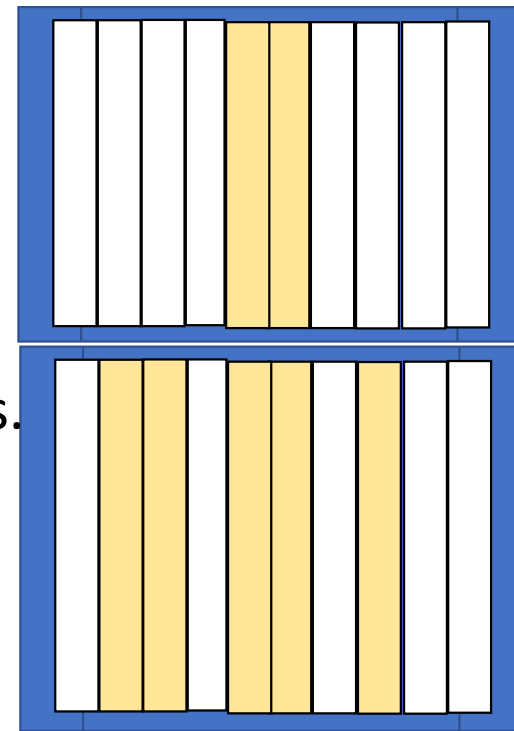
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.



Nuc or Split

Sustainable hive management

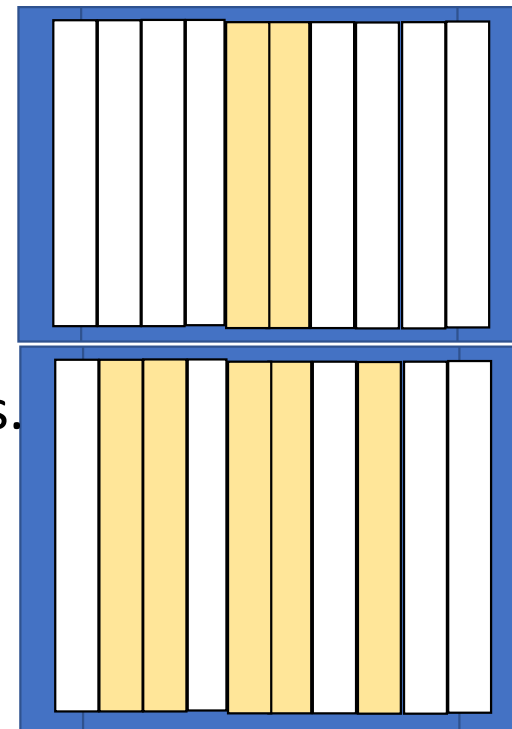
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.
- Then add the next box....



Nuc or Split

Sustainable hive management

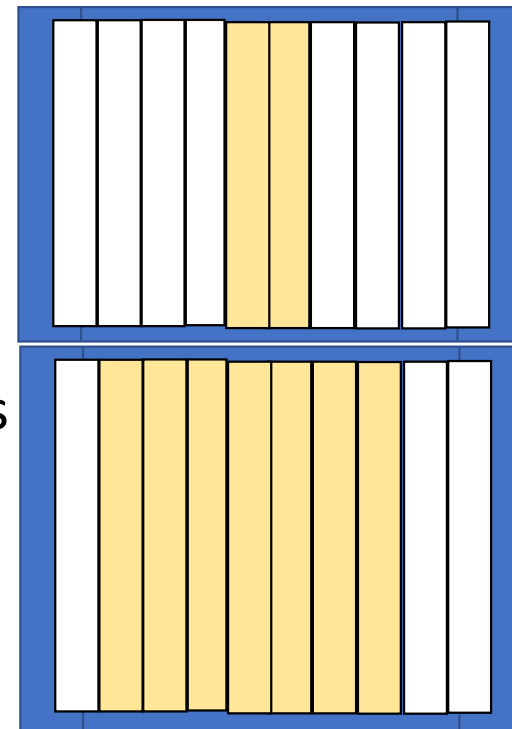
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Put undrawn frame in center once a week – until 8 frames covered in bees.
 - Then add the next box....
 - And... aim for ONLY ONE BOX with undrawn frames!!!!



Nuc or Split

Sustainable hive management

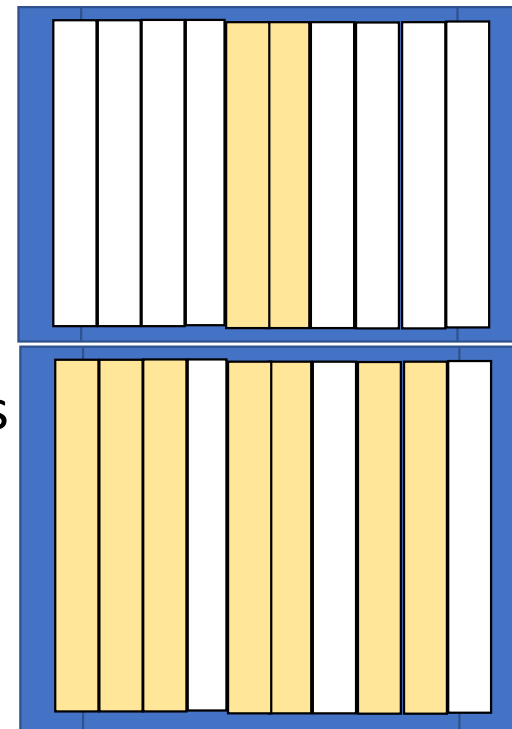
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Swap ONE outer and inner frame a week – until 8 frames covered in bees
 - Then add the next box....
 - And... aim for ONLY ONE BOX with undrawn frames!!!!



Nuc or Split

Sustainable hive management

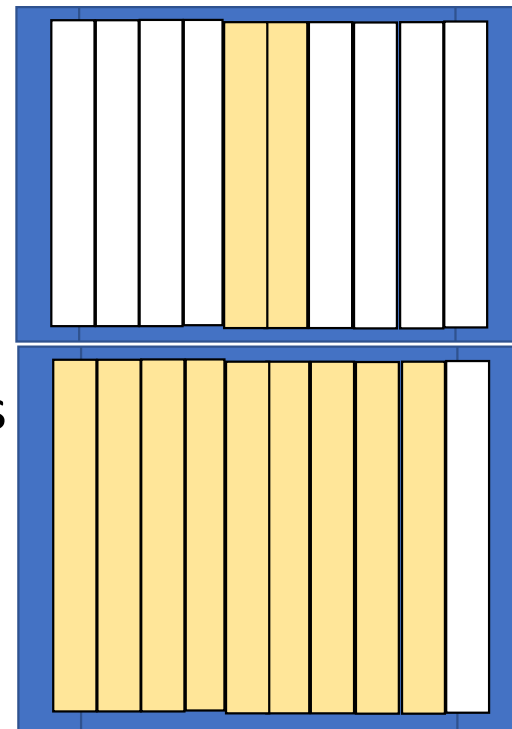
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Swap ONE outer and inner frame a week – until 8 frames covered in bees
 - Then add the next box....
 - And... aim for ONLY ONE BOX with undrawn frames!!!!



Nuc or Split

Sustainable hive management

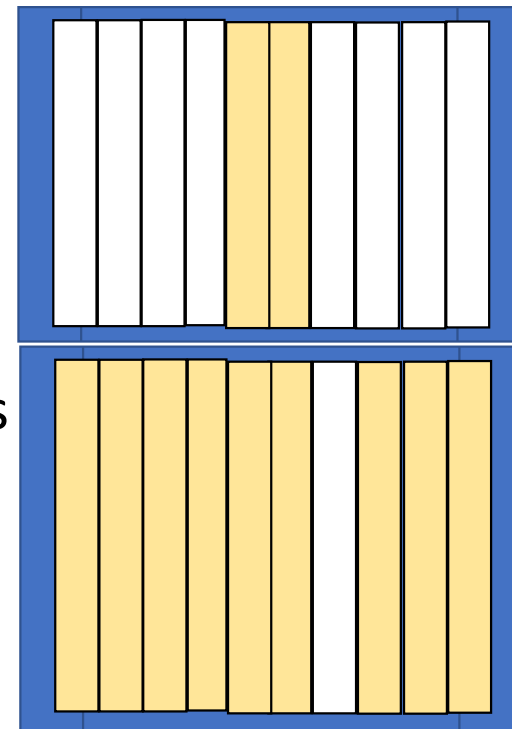
- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Swap ONE outer and inner frame a week – until 8 frames covered in bees
 - Then add the next box....
 - And... aim for ONLY ONE BOX with undrawn frames!!!!



Nuc or Split

Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Swap ONE outer and inner frame a week – until 8 frames covered in bees
 - Then add the next box....
 - And... aim for ONLY ONE BOX with undrawn frames!!!!



Nuc or Split

Sustainable hive management

- Hive State: Growing!!!
- Queen quality: Suspect until hits 6 weeks
- Ensure comb construction is happening!
 - Helping bees know there is space...
 - Making sure they have plenty of raw materials!
- 1 gal 2:1 sugar syrup per box per week



Sustainable hive management

- **Hive State: Growing!!!**
- Inspection records
- Set up hives so ready for what's next
- Manage for higher bee populations



Sustainable hive management

- Hive State: Growing!!!
- **Inspection records**
 - Mission!!!
 - Note when queen in “danger zone” date
 - Note frame number & type of brood
 - Track comb construction progress
- Set up hives so ready for what’s next
- Manage for higher bee populations



Sustainable hive management

- Hive State: Growing!!!
- Inspection records
- **Set up hives so ready for what's next**
 - Inspection Sheet – Mission!
 - Add Room in Time
 - Add Room Effectively
- Manage for higher bee populations



Sustainable hive management

- Hive State: Growing!!!
- Inspection records
- Set up hives so ready for what's next
- **Manage for higher bee populations**
 - Add Room Effectively
 - Feed Effectively
 - Watch That New Queen!



Sustainable hive management

- Hive Inspections! What's your mission?
- Hive State: Mature!!!
 - All their drawn comb



Sustainable hive management

- Hive Inspections! What's your mission?
- Hive State: Mature!!!
 - All their drawn comb
 - And queenright



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright
 - Means eggs/larvae
 - Usually on frames 2-4, top brood box



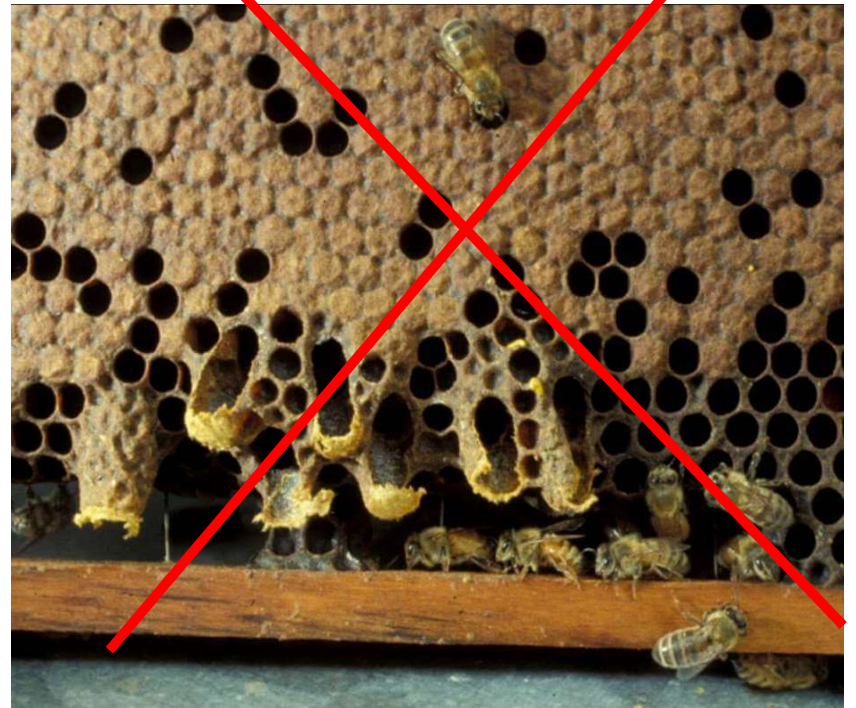
Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright
- **DO NOT RELY ON:**
 - Entrance Activity



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright
- **DO NOT RELY ON:**
 - Entrance Activity
 - Capped Brood



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright
- **DO NOT RELY ON:**
 - Entrance Activity
 - Capped Brood
 - Top of Hive Bee Population



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- **Get hive ready for next 14 days**
 - One Frame Brood =
2 more frames bees



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- **Get hive ready for next 14 days**
 - One Frame Brood =
2 more frames bees
 - On top of how many bees you have
NOW



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- **Get hive ready for next 14 days**
 - One Frame Brood =
2 more frames bees
 - On top of how many bees you have
NOW
 - Mature Hive has drawn honey supers
 - Super Early!
 - And don't deny them beespace to
harvest honey



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- Get hive ready for next 14 days
 - Give Bees Room



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- Get hive ready for next 10 days
 - Give Bees Room
 - **Give Nectar Room**



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- Get hive ready for next 10 days
 - Give Bees Room
 - **Give Nectar Room**
 - Drawn Supers on in time
 - Undersuper with fresh super when pulling capped honey



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- Get hive ready for next 10 days
- **Make sure they aren't hungry in summer.**



Sustainable hive management

- What's your mission? Mature hives.
- Confirm Queenright.
- Get hive ready for next 10 days
- **Make sure they aren't hungry in summer.**
 - Outermost frame tells all.
 - Make sure have 1 full super end of July



Sustainable hive management

- Hive Inspections! What's your mission?
- Hive State: Mature!!!
 - Queenright
 - Check for eggs/larvae every 10-14 days
 - All their drawn comb
 - Supers in place so room for bees and honey
 - Not hungry
 - **Inspection records**



Sustainable hive management

- Hive Inspections! What's your mission?
- Hive State: Mature!!!
 - All their drawn comb
 - And queenright
 - Inspection records
 - **Set up hives so ready for what's next**
 - Nectar and bees need room
 - One frame brood = 2 frames of bees
 - No hungry hives!



Sustainable hive management

- Hive Inspections! What's your mission?
- Hive State: Mature!!!
 - All their drawn comb
 - And queenright
 - Inspection records
 - Set up hives so ready for what's next
 - **Manage for high bee population**
 - Monitor queenright
 - Post swarming – pop almost all queen cells.
 - Check outer frame – no stores? No brood.



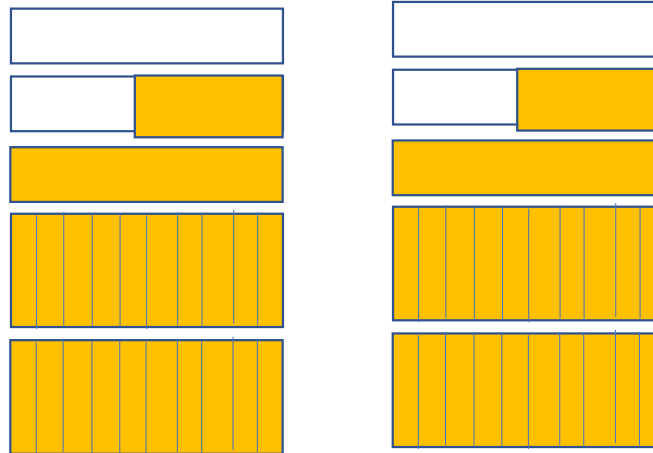
Sustainable APIARY management

- Must have 2 hives minimum.
- If need 5 honey makers through summer, plan on 8 hives going through winter.
- Have 1 spare hive body for every 3 hives.
- Aim for MORE mature hives, FEWER growing hives.



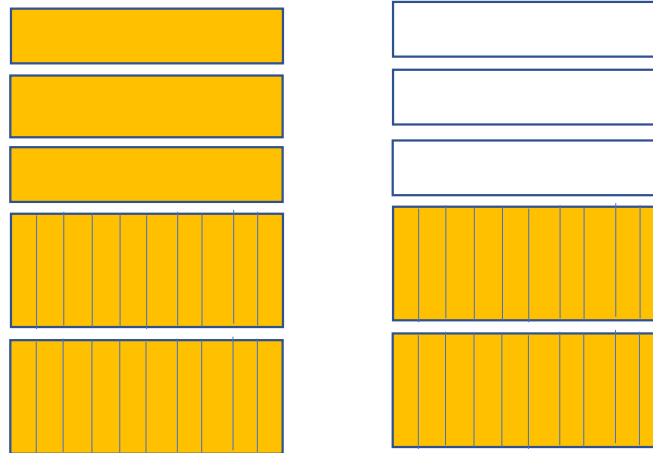
Sustainable APIARY management

- Example 1:
- 2 queenright hives, neither fully drawn comb



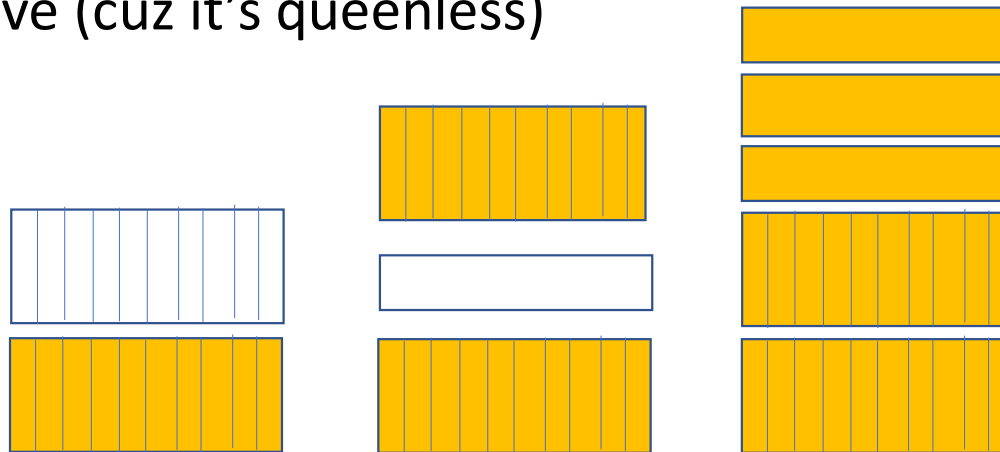
Sustainable APIARY management

- Example 1:
- 1 Mature Hive, 1 Growing Hive



Sustainable APIARY management

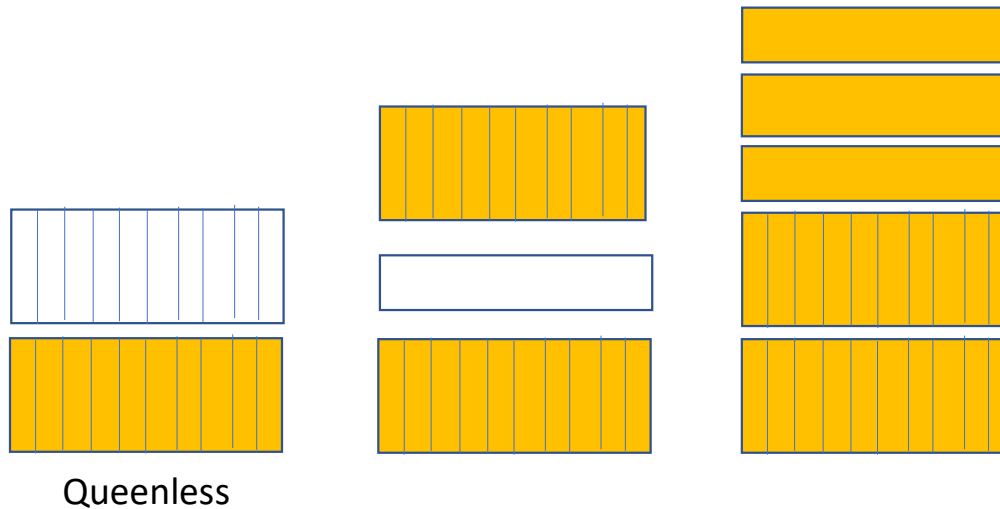
- Example 2:
- 2 Growing Hives with partially drawn brood chambers, and...
- 1 Growing Hive (cuz it's queenless)



Queenless

Sustainable APIARY management

- Example 2:
- 1 Mature Hive
- 2 Growing hives; one is queenless



Sustainable APIARY management

- Must have 2 hives minimum.
- If need 5 honey makers through summer, plan on 8 hives going through winter.
- Have 1 spare hive body for every 3 hives.
- Aim for MORE mature hives, FEWER growing hives.
- Consider Inspection Day, followed by Follow-Up day



Sustainable APIARY management

- Must have 2 hives minimum.
- If need 5 honey makers through summer, plan on 8 hives going through winter.
- Have 1 spare hive body for every 3 hives.
- Aim for MORE mature hives, FEWER growing hives.
- Consider Inspection Day, followed by Follow-Up day
- Maximize good genetics by having a drone frame (and cull drones when cull queen!)



Sustainable APIARY management

- Do not look at swarms as a blessing.
 - Demotes hive to “Growing”.



Sustainable APIARY management

- Do not look at swarms as a blessing.
- Afterswarming: prevent by removing excess queen cells
 - Keep population up



Sustainable Beekeeping

- Don't have to buy bees or honey
- How? Mite management – check!
- Inspection records
- Set up hives so ready for what's next
- Manage for higher bee populations
- For a single hive, and across the apiary

