

# Spring Colony Management



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# Overview

- Spring Build Up
- Swarming
- Swarm control: Splitting, Supering, and Equalizing
- Managing to maximize honey flow

# Spring Build Up

- Many things influence colony build up in the spring:
  - Nutrition
  - Colony population
  - Weather
  - Parasite load/ disease

# Spring Build Up

- Many things influence colony build up in the spring:
  - Nutrition: The availability of protein for rearing brood, fall protein stores and spring pollen forage fuel brood rearing. Lack of sufficient protein can suppress brood rearing.



# Spring Build Up

- Many things influence colony build up in the spring:
  - Colony population: determines the cluster size and the total area of brood that can be kept warm



# Spring Build Up

- Many things influence colony build up in the spring:
  - Weather: Rain/snow/wind/cold temps can stop bees from foraging and sudden or severe cold/wind can shrink the cluster (brood kill)
  - Unseasonably warm temps in late winter/early spring can allow hives to rear larger amounts of brood early in the season and potentially swarm earlier than normal

# Spring Build Up

- Many things influence colony build up in the spring:
  - Parasite Load/ Disease: Mite infestation or brood disease can slow spring growth in colonies and should be dealt with as needed

# Swarming



- Cues for a colony to swarm:
  - Colony size
  - Crowding of existing hive cavity (lack of sufficient room to rear brood, crowding of adult bees)
  - Nectar flows
  - Season/day length
  - Reproductive impulse



# Swarming



- Feral vs Italian/Domestic bees:
- AZ Feral hives get the urge to swarm much more readily and once the urge is triggered it is not easily reversible
- Italian/Domestic breeds tend to not swarm as often and are more easily dissuaded from doing so through management

# Swarming



- Swarm season in Tucson: Feb-October
- Reasons to avoid swarming as a beekeeper:
  - Missed opportunity to split your hive
  - Losing population before/during the honey flow (loss of honey production)
  - Swarms are a nuisance/danger for non beekeepers

# Swarming



- “Honey Bee colonies that peak in population before the main honey flow begins are much more likely to swarm than those that peak after it begins”

-Bob Binny

([http://www.youtube.com/watch?v=oAJ928fr\\_EM](http://www.youtube.com/watch?v=oAJ928fr_EM))

# Identifying Signs of Swarming



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- Hives loaded with bees and resources are likely candidates for swarming, particularly if they lack space to store honey and rear brood
- Production of queen cells that contain an egg or larvae
- Backfilling brood area with nectar and pollen
- Reduction in total number of eggs layed/larvae seen in the hive

# Swarm Prevention

- Providing Hives with adequate space during the spring can help reduce swarming tendencies and maximize comb production
  - Supering – Adding a box to a hive in order to expand the space available to a colony to rear brood and store resources (typically done when existing box is 70-80% full)
  - Checker boarding – Alternating frames between drawn comb and undrawn, stimulates comb building on undrawn frames and reduces crowding

# Swarm Prevention

- Providing Hives with adequate space during the spring can help reduce swarming tendencies and maximize comb production
  - Adding too much space too early is not good for hives however if they can't adequately maintain the temperature of the larger space
  - Avoid supering or checker boarding right before a cold snap or when colony population is too small



# Hive Number Increase

- Splitting hives is a way to “beat your bees to the punch” on reproduction by dividing a colony before it can divide itself.

Hives are Split by dividing the brood, adult bees, and resources of a colony into two or more new colonies. New Queens are typically provided to splits.

# Hive Number Increase

- Splitting methods: Finding the queen vs Not
- Queen introduction: Mated (3-5 days), Cell (7-14 days), Natural queen rearing (28-32 days)
- Early Season Queen availability/quality



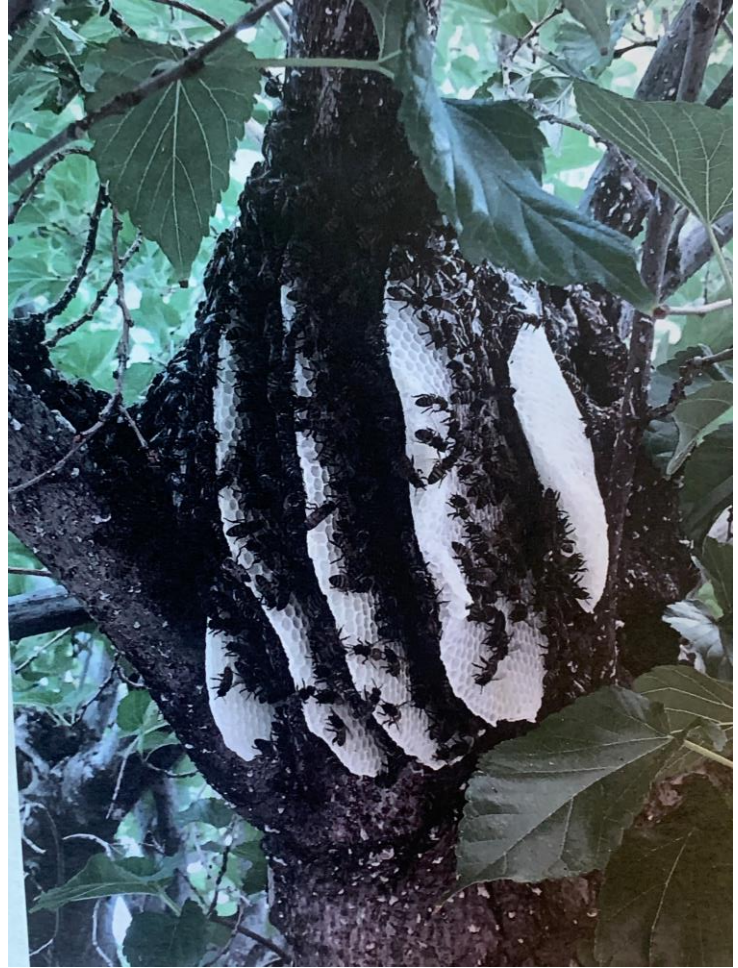
# Maximizing honey production

- Colonies with a large population during the main nectar flow will produce more honey than smaller colonies
- Maximize honey production by having colonies peak in population (and not swarm) during the flow.
- A strong double deep at the start of flow with no signs of swarming is ideal trajectory for a good honey crop.

# Swarms



- Time of Year
- Caution – Spring grow quickly.
- Requeen experience?
- Defensive? Open air hive?
- Experience







# Cutouts

- Experience – Recommend 5 years
- Start with contained.



Damage to  
homeowner

insurance

Electric lines





## SAVING ALL THE BEES



# Unhappy Customers



# More Cautions:

Tired? Keep Going, be thorough.

Equipment to do the jobs

Location for the bees (AHB)

Sick / sprayed bees

Hospitalization

Safety and containment

Insecticide Application License – illegal to even use soapy water. If you do not have confident complete containment refer to other company with experience and/or extermination license.

# Gift-giving to neighbors is uncool!

