



The Managed Mentoring Program
on getting started in beekeeping.

Managed Mentoring



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Summer and Fall Feeding

Lesson | Summer and Fall Feeding



What is Covered in this Module

Reasons to Feed

Supplemental Feeding

Evaluating Feeding Requirements

Feeding Guidance



Feeding in Summer

□ Reasons to feed in summer

- *It comes down to an operational environment*
 - Ideally, we are looking to assess how the bees are doing as far as the colony setup.
 - Is everything in good order – when considering summer progression?
- *We need to have a good place to raise summer and fall bees*
 - These are the bees that over time will transform into our overwinter bees
 - A worker bee's lifespan changes when they become overwinter bees from weeks of life, to months of life. We need to make sure these bees have what they need, and looking after that starts in summer



Feeding in Summer

□ Colony Assessment

- *By now colonies should be established and the population should be occupying the boxes provided*
- *As things get 'built out' you will come to know certain frame constructs as setup by the bees.*
 - As you do colony assessment for feeding, you can review the various frame constructs and observe if they have the right mix.
 - If everything is in order, then perhaps you can forgo feeding.
 - If not, then you may be well served to provide supplemental feeding through summer to carry them to a fall nectar flow.



Areas of Dearth

Definition

Dearth: a scarcity or lack of something

□ Some areas experience dearth

- *Depending on where you are, it is possible that your hive might experience a lack of resources to keep the hive function optimal*
 - Bees often are not challenged with finding pollen in the mid-Atlantic, but it might be hard depending up on the season, to find nectar and/or water.
 - This is especially true when spring or summer are abnormally dry
- *You might be tempted to believe that bees can get by*
 - **Do not stress the bees** by making them fend for themselves; especially for first year colonies.
 - Assess the stores, and if need be, provide them the supplemental feeding.



Supplementing Fall Stores, in Summer

□ Resource Withdrawal Impacts

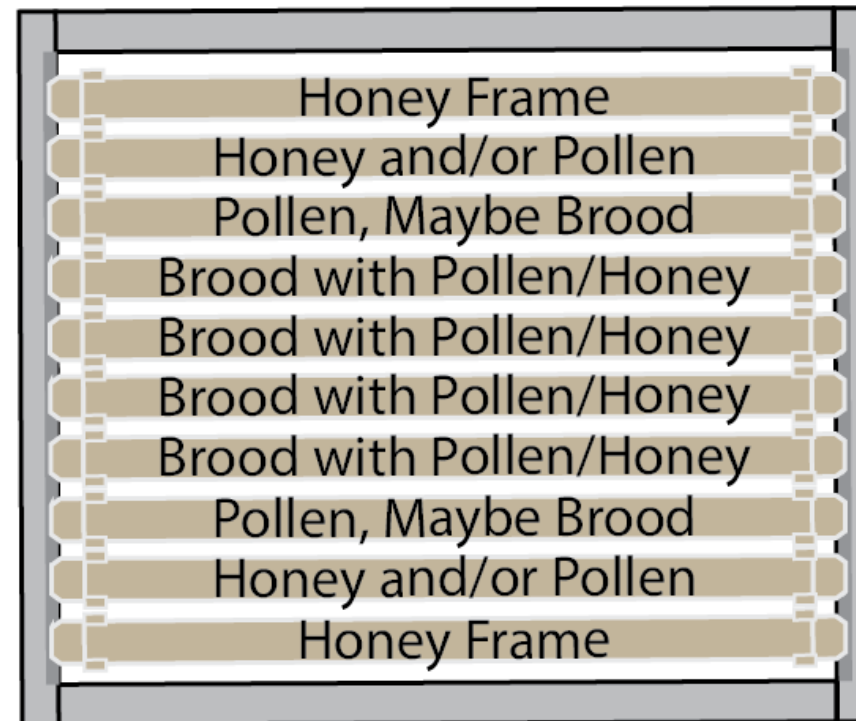
- *Feed bees in summer, even if it is simply to maintain them*
 - Colonies customarily maintain some resources in reserve and are frugal
 - Colonies are aware that they need to sustain their population
 - **Keep in mind that big colonies requires a decent amount of resources**
 - They might have the workforce to collect resources, but in a lean summer, the scarcity will cause things to dwindle. Maintaining them keeps a working population
 - It also helps to keep resources high enough that the bees do not have to work as hard to get to fall and winter reserves of 60 to 80 pounds of capped honey



Reading the Frames

□ Understanding common frame setups

- *The nest area: if we know what good looks like, we can assess how much to feed*
- *Frame Inventory – The list of common frames in a brood chamber*
 - Brood (in development) Frames
 - Capped Brood Swaths
 - Pollen and/or Pollen/Nectar Storage
 - Uncapped Honey
 - Capped Honey



Review the resources by reading frames

□ There should be:

- *A handful of frames in operation where brood is being reared*
 - Note: Some queens do slow down quite considerably, but as a rule of thumb, there is always some brood from earlier lingering (pending emergence), or a new round getting started
- *Pollen and Nectar Reserves*
 - There should be some or many frames of resources adjacent to the brood nest.
- *Capped Honey*
 - Both across the tops of the frames, and in the outer areas of brood boxes



Brood Frames (in Particular)

- Brood in progress (Eggs and Young Larvae)
 - *New brood should be reared in reasonable ways*
 - They are well provisioned by the nurse bees; Plenty of royal jells in the cells
 - To the opposite, in lean times, new bees **endure low food supplies** in the cell while they develop. Not wet, and well provisioned, but almost to a dry bottom in the cell
 - There should be nectar in and around the developing brood with stores in the upper corners of the brood rearing frames
 - There has to be adequate pollen stores in and around brood being raised
 - *Remember: Trust the rainbow and reviewing what a good frame has*

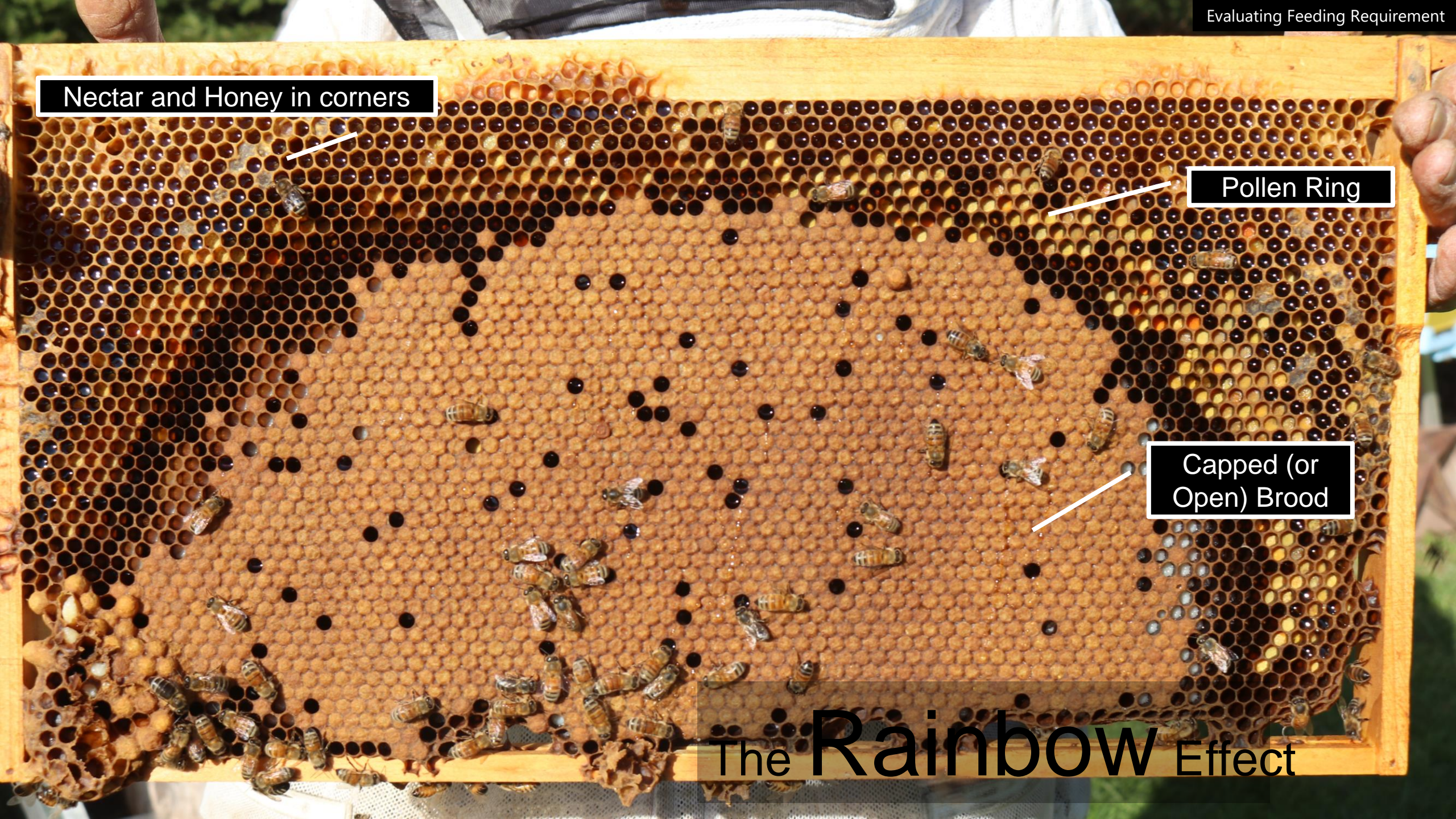


Nectar and Honey in corners

Pollen Ring

Capped (or Open) Brood

The Rainbow Effect





Polished Cells,
Ready for Brood



Feed 1:1 in Summer, 2:1 in Fall

□ Maintain bees on 1:1 Sugar Solution

- *A mix of one part sugar to one part water, by weight or volume (it doesn't matter) provides food for bees*
 - Food serves to keep colonies nourished, and it stimulates the colony by providing a faux nectar flow that allows for the colony to keep operating
 - In contrast, slow nectar forage without supplemental food, can result in a colony scaling back production of brood to much lower levels
- *2:1 for Storage and Reserves*
 - Two parts sugar, to one part water is often looked at by the bees as reserves to be placed into cells, dried, and capped for future use. This we do for winter...



Pollen Supplements

□ Feeding Pollen to Colonies – is it required?

- *The Mid-Atlantic is a boon for pollen for bees.*
 - No matter what time of year, with an adequate work force, workers will be able to find pollen.
 - On the whole, a dearth of pollen is not a concern – and it is not a practice to feed.
 - Some pocket areas might have challenges and if resources look scarce, you can provide some pollen supplements as a failsafe.
- *Pollen Supplement have a place in some operations...*
 - We will talk about where they fit into a management plan later in the program



Administering Pollen Patties

□ Feeding Pollen over the brood nest

- *The reason to feed pollen is to provide protein for developing bees*
 - As such, place pollen patties in close proximity of center of the brood nest
- *"Deck of Cards"*
 - One thing to know about pollen patties is colonies generally are slow to consume them.
 - This means what you feed – the actual pollen patty you place in the hive – should be no bigger than a deck of cards.
 - Place it on the top frames of the bottom brood box, and under the upper brood box



Do not over do it

- *1:1 Sugar Solution*
 - Like any other time do not overload the colony with an abundance of sugar solution
 - Start out small (1 to 2 cups). If they take it down, up the quantity some.
 - If you see the bees hoarding, and cells are being flooded with sugar solution, scale it back. Try to find the right balance for feeding, without enduring wet storage.
- *Pollen "Deck of Cards"*
 - Review the uptake of the pollen patties, and if they are not taking them, pull them out.
 - You might also consider rotating in fresh ones every once in a while if you are planning to maintain them over a period of time.



How Long?

□ Maintain until fall plants appear

- *Indicator plants for the fall forage season in the Mid-Atlantic include Goldenrod, Asters, and other early fall forage*
 - When you see foraging plants blooming you can scale back any feeding that you are doing.
 - Note that some pockets have a weak fall flow, and you might want to keep viewing the conditions in the hive to see if you should keep feeding
 - Bees can use natural fall forage plants to maintain everyday feeding
 - At this time we will coach you to switch to a 2:1 ratio sugar solution to bolster bees reserving stores for 60 to 80 pounds of capped winter honey.



Closing Comments

- **Customary Close**
 - Where we stand, where we are going...
 - *This lesson focused on summer and fall feeding.*
 - *Our next set of lessons focus on late summer management:*
 - Preparations for a fall nectar flow
 - Ensuring your queen is viable through the seasons
 - Avoiding/Handling Robbing Events



- **What Questions did we not anticipate?**
 - If you have feedback, you can leave a constructive comment; but be nice.
 - You could also send an email to comments@managedmentoring.com
 - *Please refer to this video in the subject so we know what the reference is.*

