

**Feeding issues not often understood by the beginner beekeeper ~**  
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*Always discuss concerns with your own area club or experienced beekeepers in your community with similar goals, facing similar conditions. I'm sharing what I've learned from my mentors as I've seen it unfold in my own bee yard. I harvest honey sparingly. My goal is to raise healthy bees, capable of surviving New England's short nectar flows and acclimated to its cold climate.*



**KEY WORDS:**

***SIMULATION* results in *STIMULATION***

It is thought bees will choose nectar over sugar water, so feeding is not a problem. If they don't need it, they'll ignore it; but the presence of a lot of sugar water coming in can *simulate* a hearty nectar flow, *stimulating* behaviors and changes in the colony when there may not be a hearty nectar flow going on; Pollen patties also *simulate* a condition, *stimulating* the colony. This can lead to some catastrophic problems. *(This is not a complete guide for fall, but in regards to understanding feeding only. See [Labor Day Duties](#))*

Here are 4 ways to feed honey bees when needed:

- **1:1 sugar syrup**  
or *stimulative* carbohydrate feeding – spring - carbs to establish a new colony, build colony numbers in anticipation of splitting or protect against starvation during a nectar dearth. Keep it coming until the natural nectar flow is available. It does no good to *simulate* that a condition exist in nature if you can't keep it up as a transition to the real thing.
- **1:2 sugar syrup**  
or carbohydrate feeding for winter preparations when the colony fails to store enough honey. Begin this in September, up north, after positioning frames in your 1st Fall Inspection. Feed until they stop taking it.
- **Pollen patties**  
protein for brood rearing - spring with caution: not too early. *Simulates* pollen abundance, hence, *stimulates* Queen to lay and bees to produce Royal Jelly for brood rearing, hence, if you offer pollen, keep it coming until the natural pollen is available or the hive could quickly outgrow its stores and die. **Not a fall management practice** when colony's should be slowing down.
- **Honey and Pollen**  
by sharing frames with small healthy colonies from established, healthy hives.

**Feeding in the summer months up north should not be necessary unless there is a dearth or the beekeeper has chosen to harvest all or most of the honey.**

**Another exception would be the necessity of feeding a package, a nucleus colony, or a captured swarm. Northern New England** summer and fall peak nectar flows are somewhat blended together over our short growing season of May to October 1st. In some areas July is a “dearth” month or at least a

lull in flow; but if basswood is nearby or milkweed and other wildflowers left to bloom in the fields, the colony can sustain itself between the two peak flows.

**Feeding honey bees brings about at least the following conditions not often understood by the beginner beekeeper:**

**Thin syrup or 1:1 – 1 part water, 1 part sugar - PLEASE no essential oils unless otherwise counseled by a proven authority! No salt! Basically, oils mask essential pheromone odors the bees need to know the hive is queen right. Bees need very little salt. Adding salt to syrup can be deadly.**



1:1 syrup - *Stimulates* young bees to mature faster – physically mature to another stage - because it *simulates* a nectar flow - and this is usually what causes issues when over-wintered bees are fed in the early spring up north. Everyone goes out to forage thinking a nectar flow is on. Feeding this mix is not a good plan unless timed just right. **Problem:** There are fewer young bees to care for new and emerging brood and protect them from the cold days yet ahead. The colony super-organism can die. In the south this is not that big an issue, but here in the north it is vital that beekeepers understand this. Books written by northern beekeepers or that speak on this subject to new beekeepers will hopefully not overlook this when offering instruction about spring feeding.

\*However, if you have a package in the spring they must be fed. With no young bees to draw wax (age 12 to 18 days and blind) feeding can sustain them and hopefully enough bees are there with wax drawing capabilities to draw out some wax on the new foundation given them, so the queen has somewhere to lay and any foraging being brought in has a place to be stored. This is why packages often fail or flee, fed or not. Being able to draw comb in a frame or on new foundation is essential to their success. New beekeepers do not normally have frames of drawn comb to offer.



*eventually a starved hive despite feeding*

\*A nucleus colony purchased in the spring with honey and drawn comb should not need to be fed unless there is no foraging available, but put a bucket of 1:1 on just to help with the transition. If they are struggling to build up their numbers and days are warm, feeding 1:1 with a pollen patty might be a good strategy, but if they take the syrup in the summer what they may be looking for instead is water. Always provide a water source, preferably in a location that will warm up with the day's light. Sometimes syrup can chill over-night making it impossible for the honey bees to access. Replace it in the morning with fresh, room temperature syrup.



To determine if your spring nucleus colony needs to be fed, watch the bees coming and going. Ask: What are they bringing in? Carefully

observe their back legs noting the color of the pollen to help you determine what they may have access to and how abundant it is. Is it pale yellow or bright? In the northern woods, pine pollen is available in late April; so are woodland flowers like wild violets, birch and maple tree pollen follows. Later, in the cities or far from the woods, dandelions are the best indicator that the nectar flow is on and they are a favorite, essential source of nectar and pollen. Pollen is protein and may be seen in the hot, dry mid to late afternoon; Nectar flows in the morning like tree sap after a cool night. You may see the bees bare-legged, coming and going with earnest in the morning.



***2 Fall Inspections Recommended: Labor Day - Columbus Day (This is not a complete guide for fall, but in regards to understanding feeding only. See [Labor Day Duties](#))***

**Heavy Syrup or 1:2 – 1 part water, 2 parts sugar-**

**PLEASE no essential oils unless otherwise counseled by a proven authority! No salt! Basically, oils mask essential pheromone odors the bees need to know the hive is queen right. Bees need very little salt. Adding salt to syrup can be deadly.**

During the 1st fall inspection – which should occur toward the last half of the fall peak nectar flow or **Labor Day weekend**– assess the colony's honey stores. Feed if the conditions do not appear favorable as follows: Supers being used for nectar evaporation may feel light because they spread the nectar out over the comb much as a flat pan is more efficient when evaporating maple sap for syrup. At this time the space they are using to evaporate the nectar can be observed and the beekeeper can assume they will empty this comb when consolidating the nectar down into select frames as honey. The area of the hive they move it to may or may not be obvious.

Most colonies will bulk up one side of the hive with honey and pollen stores. The beekeeper can assume that the colony feels this to be the side of the hive most protected from drafts or cold and where they will end up in the middle of winter.

If there is plenty of foraging left, at least two weeks of a good flow, trade the position of frames that are neglected on one side of the hive to the side being given the most attention. ***DO NOT DO THIS UNLESS THERE IS TIME FOR THEM TO FILL OUT THOSE COMBS WITH HONEY AND POLLEN STORES.*** Trading frames like this can insure honey on both sides of the brood nest, especially if they are in the process of evaporating large areas of comb with nectar. Observe the colony when the flow is over.

**2nd Fall inspection** (***This is not a complete guide for fall, but in regards to understanding feeding only. See [Labor Day Duties](#)***) **Columbus Day weekend:** Peek at their honey stores. Do not upset the fall inspection configuration unless the side they were trying to bulk up during the 1st Fall inspection is lacking stores. Switch back the fullest frames to this side. If the nectar flow is over and there is not enough honey to see them through our long winters Feed 1:2 while temperatures are moderate and the honey bees still have time to get out of the hive to void waste, or dysentery can be a devastating issue.