



WHAT IS A NUC?

The term “nuc,” a shortened version of the term “nucleus colony,” is a small-sized hive in which a small colony of bees resides. Nucs are sold as starter colonies.

At *Keys to Bees, Inc.* you will receive a nuc with five frames filled with bees. One outer frame will contain mostly pollen or bee bread, while the opposite outer frame will contain mostly nectar or honey. The three center frames will contain

various stages of brood. The Queen will be found on one of these frames (at least she should remain with the brood nest, she could shift during travel). Additional brood frames will be shaken into your purchased nuc to give you an additional number boost to your supporting nurse bees. We have found this composition for a nuc to work best for a quick colony build up.



INSTALLATION

During transportation the bees can get bumped around and may get heated. Upon arriving at their new apiary (bee yard), place the unopened nuc beside their new location. Give them 1-2 hours to settle. Though it is best to sit them in the shade as temperatures are increased in the nuc.



For installation you will want to keep the frames in the same order when placing them into their new hive body. You will move the frames over gently, starting with frame #1 or #5. Be careful not to roll the bees as you slide the frame out of the nuc and into the permanent hive body. The first frame is the most difficult and is why we start with an outer frame because the queen is less likely to be on an outer frame. Once all the frames have been transferred, push all frames tight together ensuring no gaps between the frames (correct bee space); otherwise, the bees will build up wax or fill gaps with propolis making future inspections more challenging. There will be some bees remaining inside the nuc box. Turn the nuc upside down and shake it until all the bees are out (this will not harm the bees but please make sure the queen is not still in the nuc before shaking out).

You will want to feed your newly installed nuc. There are several options in feeding (frame feeder, inner top feeder, boardman (external mason jar), internal mason jar, etc. The feed will be a one-to-one sugar-to-water ratio. We like to add a few drops of HoneyB Healthy to the mixture as this encourages the bees to feed and delays potential mold issues. If you make your own sugar syrup do not boil the mixture, simply heat the water, and add the sugar while stirring. Bees cannot eat caramelized sugar, so you do not want to burn the mixture. Given enough time the sugar will melt in the water.



You will only need one hive body to start. Do not give a second tier yet as this will be too much space for the bees to guard and to work. If you can check your feeder without opening the colony, do so in 2-3 days; replenish as needed. In 7-10 days, conduct an inspection. Your new colony should be acclimated to their new surroundings at this time and be starting to draw comb on the empty foundation frames. If you are fortunate enough to have drawn comb, check to see what resources the bees are filling. The queen should be back filling the emerged brood frames &/or laying in the drawn comb/new comb frames. The weather and temperatures will determine just how fast your new colony will expand. However, it is not uncommon for an eight-frame medium structure to need a second level by the second or third inspection. If 80% of the frames are filled with resources, it is time to place an additional tier. We do not want to lose your new colony to swarming.

When placing the next tier, pull one frame of brood up into the new tier level and replace with drawn comb if available or an empty frame. This will encourage the bees up to this new level and they will be encouraged to draw comb on the two frames adjacent to this one frame.

INSPECTIONS

During the nectar flow you will want to conduct inspections every 7-10 days. During these inspections you are checking for one or more of the following:

- Do they have enough space?
- Do they need to be fed?
- Is the colony queen right (you see the queen or see signs of the queen such as eggs)?
- Do they appear healthy? The quantity of bees look good (enough nurse bees to cover brood) and the ratio of workers (97%) to drones (3%) look good. Their behavior is not out of the ordinary such as: unusual agitations (could indicate queenless, pest, or pathogen).

Upon your second inspection, conduct a mite count. Honey Bee Health Coalition has great step-by-step videos to assist you. <https://honeybeehealthcoalition.org/>

The threshold of the necessity to treat for mites is three (3) or more per check. If you have more than one colony in your apiary and one of these colonies is above the threshold you do need to treat both colonies.

Your colony was last treated for varroa mites on _____ with _____.

In the Northeast our nectar dearth routinely comes around mid-June. At this time, the queen will slow down her laying as there is not as much food available. During the dearth, inspections are less frequent, every three (3) weeks. You will notice a difference with late summer inspections as robbing from other honey bees and wasps frequently occur. Inspections should be conducted quickly to reduce the time the nectar/honey is exposed. Mite checks should continue to be performed monthly. As the queen reduces her laying the varroa mites generally are increasing their numbers. Late summer is a critical time to ensure the mite counts are low as our winter bees are being established if mite counts are high at this time; overwintering successfully will be unlikely.

During September and October, we help the bees prepare for the winter. We do this by reducing the hive space and feeding as necessary. Many times, tier level one does not get replenished by the queen and contains empty drawn comb, if this is the case, this entire hive body can be taken off. As you perform your inspections during late summer, early fall, assess the frames; if they are unused remove them as you are able, reducing the height of the colony. The colony should have an average of 65-70 lbs. of honey to take into the winter for their food stores. If your colony is light on food stores, start feeding your colony in late summer / early fall two-to-one; sugar-to-water ratio.

If you have any questions or concerns, please email (saybees.apiary@gmail.com) or call/text me (717) 968-9359.

Happy Partnering with your Bees,

Tiffany

