



ATTTA

Atlantic Tech Transfer
Team for Apiculture

Managing Nucleus Colonies Part 2: Care of a Nucleus Colony



Figure 1: Feeding a newly made nucleus colony (©ATTTA)

Before Picking up Your Nucleus Colony

Ensure you have read “Managing Nucleus Colonies Part 1: What is a Nucleus Colony: Information for New Beekeepers.” Compile all the answers to the questions to ask your supplier outlined in Part 1. Plan your time carefully when collecting your nucleus colony, traveling to your apiary and installation. It is best to collect your nuc as early in the day as possible. Traveling with live bees inside of a passenger compartment of a vehicle is not recommended.

Ensure all of your equipment and tools are ready and your apiary is set-up prior to collecting your nucleus colony. You will need a platform or stand, a bottom board, brood box, frames with foundation, inner cover and outer cover. All wood treatments and paint should be done well in advance to ensure finish is complete. Electric fencing, if required, should be set up in advance.

To prepare for the installment of your nucleus colony, ready a single brood box with extra frames, a feeder with 1:1 sugar syrup and supplemental pollen (e.g. pollen patty). The number of extra frames required will depend on if you are purchasing a 4-frame or 5-frame nucleus and on the size of the frame feeder (alternatively top feeder or pail feeder may be used). Therefore, you will need between 3 and 6 extra frames. Although you are likely to be supplying foundation, ideally, it is best if the extra frames have drawn comb to facilitate brood production. As an option, many beekeepers will confine the new colony for a period after the nuc has been transferred to the hive. If you intend to do this, blocking the entrance will need to be done prior to installation.

Installing Your Nucleus Colony

After acquiring and traveling with your nuc, set it in front of the hive for a short period of time to let the bees settle. Once the colony is quiet, open the lid and, if necessary, give them a light puff of smoke or sugar water to further quiet them down.



Figure 2: Preparing to transfer a nucleus colony (©ATTTA)



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Gently move each frame from the nucleus colony and place them in the centre of the previously prepared hive. The frames from the nuc should be placed together in the same order and orientation as they came in the nuc box. If possible, locate your queen when transferring the frames. Once you find the queen, you can cage her and place her into the colony after the nuc has been installed or you can take extra caution to make sure she is not injured during the transfer. It is good practice to check that a queen is present within the nuc as she is part of the total value of the purchased nucleus colony.

After installing the nuc, there should be a total of ten frames (less considering a frame feeder) within the hive. Any remaining bees within the nuc box can be shaken into the hive (double check the queen is not left within the empty nuc box before shaking). The nuc box can also be placed on or in front of the hive to allow any straggler bees to find their way home. Remember to place a pollen patty on the hive and ensure the feeder is full.

If you have the entrance blocked, you must remember to remove this after a short period – usually first thing the following morning.

Feeding Your Nucleus Colony

Take careful note of the nutritive status of your nucleus colony when you transfer the original frames into the hive. The nuc should come with a supply of both pollen and honey. Providing supplemental pollen is important as it will provide protein to the colony, which is essential for rearing brood and building up the colony. Providing sugar syrup is important as it increases resources available within the colony and this will stimulate brood production resulting in good wax production to build comb on the frames provided. Remember, your goal is to allow your colony to draw comb and increase its population. Depending on the strength of the original nuc and environmental conditions, supplemental feeding may need to continue for the remainder of the season. Monitor your hive to determine what is required but always err on the side of caution. Honey harvesting should not be a priority in the first season.

Managing Your Nucleus Colony

It is best to leave your newly installed nuc alone for a couple of weeks after installing it. Only open the colony to feed sugar syrup and pollen during those first couple of weeks. Once you are confident with the progress of the hive a full inspection can be undertaken. After that, check on the colony's progress occasionally (approximately weekly). Once the colony is working 7 or 8 frames, add another super on top for colony expansion.



Figure 3: Developing honey bee colony (©ATTTA)

As the colony starts to draw out frames within the top super, some frames can be moved down to the bottom super to fill the box out. It is important to keep the brood together and to encourage the bees to continue working into the top box by having some drawn comb present up top.


Once the second super gets half to three quarters full of bees, add a honey super on top to prevent hive congestion but do not place a queen excluder on at this time. This will also allow the bees to work the foundation and draw comb which will be useful even if you do not intend to harvest honey. Additionally, you can assess the need to continue feeding but be aware of seasonal nectar dearth when making this determination.

If the colony is strong enough and starts drawing out the honey super, let the queen come up and lay a couple frames of eggs. Then locate her and move her down to the brood supers. At this point, a queen excluder can be placed under the honey super. Having a small amount of brood within the honey super encourages the bees to pass through an excluder to continue working those frames and eventually filling with honey.

If your colony is building well and there is a strong honey flow (good supply of nectar) you will have to consider if a honey crop can be achieved. Although not an expectation, it is not unheard of in ideal conditions to get some honey. This especially could be the case if you had access to drawn comb. If you decide to produce harvestable honey you must stop feeding!

During hive inspections, keep an eye out for active swarm cells on the bottoms of brood frames between the top and bottom brood supers by tipping the top one back and giving it a light puff of smoke to clear bees away.

Always follow proper Varroa mite management, including regular mite monitoring and treating when necessary, using approved and proven-effective treatments following manufacturer recommendations. If needed, bees should be treated for Varroa mites by early to mid-September in Atlantic Canada to protect



winter bees from viruses and damage to brood caused by Varroa parasitism.

Finally, prepare your new colony for its first winter following best management practices for feeding, wrapping and ventilation.

If you have questions on how to prepare for a nucleus colony, how to install a nucleus colony or how to manage a nucleus colony throughout the season, reach out to the ATTTA team at attta@perennia.ca

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