

PURCHASING AND INSTALLING BEES

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Honey bees can be purchased through a beekeeper and sold in two forms: packages and nucleus colonies (also referred to as “nucs”). Purchasing bees allows more control over genetics of the colony, and select bees with desired traits, such as gentleness or good honey production. This is especially important for those with little to no experience with bees or those that house their bees in a smaller space with close neighbors. Some experienced beekeepers will collect swarms of bees to place into boxes.

Packages (Fig. 1) consist of 3 pounds of bees placed in a wooden box with screen sides and a queen. The queen is not the original mother of the workers in the package, but in transit, they will have accepted her as their queen. Packages usually have a can of syrup to provide food to the bees during transport.

Nucleus (or nucs) (Fig. 2) are small hives consisting of 4 to 5 frames of brood, honey, pollen, workers, and a queen. Frames already have comb, so the queen does not have to wait for the comb to be drawn to lay eggs. Nucs may be stored in plastic or wooden boxes (Fig. 3).



Figure 1. Honey bee package



Figure 2. Honey bee nuc in the plastic nuc box



Figure 3. Honey bee nuc in the wooden nuc box

Table 1. Pros and Cons of Packages and Nucs

Package	Nuc
Cheaper	More expensive
Can be mailed	Must be picked up
No comb, honey, or pollen	Contains 4 to 5 frames of a drawn comb. Frames have pollen and honey (capped or uncapped).
No brood to replace dying workers	Contains brood frames to replace dying workers and encourages queen to start laying
Queen usually comes in a cage and must be released	The queen sometimes comes in a cage and must be released. Some beekeepers selling nucs will introduce the queen to the nuc before selling.
Higher chance of failure due to lack of comb, brood, and food	Greater chance of survival because it is already a small hive
Must be fed well to ensure survival	Should be fed well to ensure survival

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PREPPING FOR INSTALLATION

Before installing any package or nuc, ensure that the bee yard is prepared. Mow tall grass and weeds and treat for fire ants. Ensure that all beekeeping equipment has arrived and that all frames and boxes are built before the bees arrive.

Set up the bee yard a few days before receiving the bees. It is important not to set up the hive boxes too soon and risk them being damaged by rain or other elements.

Installing Packages

Packages generally arrive through the mail. Make sure that someone will be home to receive the packages so they are not left in the sun. Once the package arrives, install the bees into the hive box within 1 to 2 days—or as soon as possible—to prevent death. Should weather or other factors not allow package installation within that time, the bees must be fed by spraying them often with sugar syrup at a 1:1 ratio (water-to-sugar) by weight.

Once ready to install, the beekeeper should visit the prepared apiary wearing protective gear, with the proper tools, and with the package of bees. Remove the staples attaching the cardboard top to the package with a hive tool and remove the syrup can. Immediately place the cardboard top back over the hole to prevent too many bees from escaping. Remove the queen cage from the package and remove the cork stopper on the end of the cage with the sugar plug. Use a nail to gently stick through the sugar plug, careful not to stab the queen. This aids the workers in chewing the sugar away to release the queen.

Place the queen cage (Fig. 4) between two frames. The placement of the queen cage varies among beekeepers. If placing vertically, candy side up, the candy may melt and kill the queen. If placing vertically, candy side down, attendant workers may die and obstruct the exit. If concerned for either of these outcomes, place the cage horizontally with the screen side down. Make sure to situate the screen on the queen cage so the workers can easily access the queen and feed her. Use a spray bottle to spray the package with sugar water and gently turn the package from side-to-side, causing the bees to ball up. Then, upturn the package and gently shake the worker bees into the hive.

Place a feeder in the box and close it up. Wait 1 week before inspecting, but continue to feed throughout the week as needed. (Refer to ENTO-096, *General Maintenance of Honey Bee Hives* for more information on how to feed bees.) At the 1-week inspection, locate the queen and check for comb. If the queen cannot be

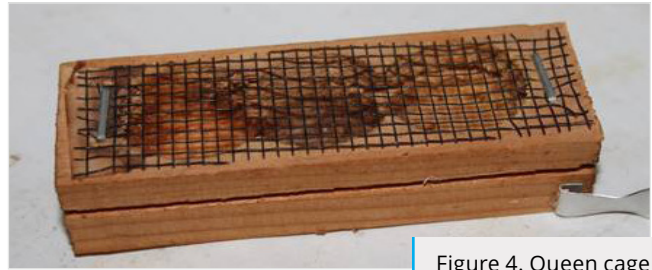


Figure 4. Queen cage

found, purchase another queen as soon as possible. If the queen has not been released, gently open the cage, and allow her to crawl onto the frames. If there is little to no comb, continue to feed the bees. Depending on the feeder's size, the beekeeper may need to feed daily. Calories are needed for bees to produce comb, and they may not have enough food from local nectar sources.

Installing Nucs

While there are many methods for installing nucs, the one described here is considered a "slow method." When picking up the nuc, bring beekeeping tools and protective equipment along with a bed sheet and tape. The nuc box may not be sealed completely, and bees will escape if placed inside a vehicle. Cover it with a sheet or place it in the bed of a truck to prevent this. If the day is warm (above 80°F) or the sun will be directly on the nuc, it is best to place the nuc inside the vehicle.

After arriving at the apiary, place the nuc next to or on top of the hive box. Leave it there overnight, and in the morning open the entrance. Allow the bees to forage for another day before very carefully placing the frames into an empty box. When removing the frames, inspect each one, locating the queen and counting how many frames contain brood, capped pupae, and food. Place each frame in the center of the box in the same orientation and order as they were in the nuc, placing additional frames in the empty space on the box's outer edges.

If the queen is in a queen cage, follow the same steps as discussed for a bee package. Feed the bees and leave them alone for a week before inspecting the hive. During inspection, check to see how much food is available and look for the queen. She may not be laying eggs at this time, as she becomes acclimated to her new environment. It is not uncommon for the queen not to lay for up to 2 weeks. Therefore, it is important to check the hive 1 to 2 weeks after the first inspection to feed regularly.

Additional online resource available through AgriLife Learn, Beekeeping 101: <https://agrilifelearn.tamu.edu/product?catalog=ENTO-025>