

Hiving and Care of Packaged Bees

Khalil Hamdan, Apeldoorn, The Netherlands



Packages of bees ready for hiving
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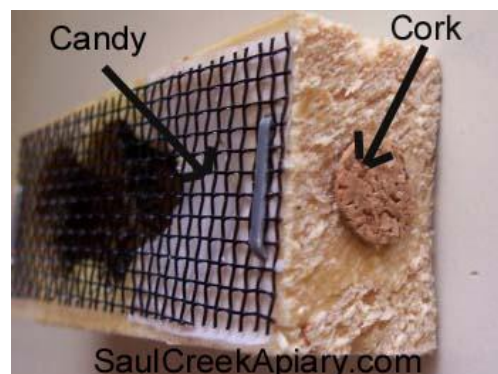
Package bees are sold and dispatched in a wooden box with a wire screen on the front and rear sides for ventilation. The package usually contains:

- 1 or 1.5 kilogram of live bees without brood or combs. A one-kilogram package contains approximately 8,000 bees, and a 1.5 kg package contains 12,000 bees
- Caged young mated queen
- A can feeder with a few small holes in the bottom suspending from the top of the box, containing about one liter of sugar syrup for the bees to feed on while in transit and until they are hived in their new hive

The package of bees usually contains bees shaken from two or more colonies, and the queen supplied with the package is bred from selected colonies to be sent in the package. The queen is kept in a separate small wooden or plastic cage with one screened side and candy release plug. The caged queen in the package is well protected and fed through the screen during transportation, and usually accepted by the bees within 12 – 24 hours. The bees free the queen to leave the cage by eating the sugar candy blocking the exit hole of the cage.



Queen in a cage
Photo courtesy of Saul Creek Apiary



Candy closed with a cork
Photo courtesy of Saul Creek Apiary

Package bees are purchased to start new beehives or to strengthen weak colonies and to replace colonies died in winter. Package bees should be ordered early so that the bees can arrive early in spring and take advantage of the many fruit trees and plants that bloom in the spring. The best time to have the packaged bees is 6 to 8 weeks before nectar flow begins.

Care of package bees on arrival

Packages bees should be picked the day they arrive as soon as possible. They should be placed in a cool or dark place with a temperature about 18 to 21 degrees Celsius. Do not keep them in the sun or heat. Package bees die quickly if they are stored where the temperature is above 21°C or left standing in the sun for too long. Packages bees should be fed immediately upon arrival by spraying sugar syrup made of 1 part sugar to 1 part water through the screened sides of the package using a hand sprayer. Although hiving can be delayed for up to 48 hours, it is important to put them in their new hives as soon as possible. If they can't be hived in that day, the bees should be sprayed with sugar syrup in the morning and night.

Hiving Bee Packages

A one-story hive with 10 frames with fitted foundation must be ready and set up in the apiary or in good location just before the hiving of bees. The bees can be hived on new foundation or drawn combs or a mixture of both. It is preferable to be hived on drawn combs so the bees will save energy and time in wax comb building. It is recommended to use at least two drawn combs so the queen can start laying eggs. The drawn combs are put in the center of the hive. A package hived on drawn combs with combs of honey and pollen will build up faster.

Package bees can be hived at any time of the day, but late in the day is preferable. This helps the bees to settle down and not to drift to other hives.

To establish a new hive from packaged bees, wear protective clothing and veil and follow the following steps:

- 1) **Open the empty hive and remove four frames from one side to allow space for the bee package. Start with nine frames when the package is hived and add the tenth frame one week later. If using undrawn foundation, slightly sprinkle both sides of the foundation with sugar syrup. This encourages the bees to build comb out on new foundation.**
- 2) **Spray the bees on both screen sides of the package with sugar syrup before opening the package box. This inhibits the bees from flying and become much quieter and easier to install. Do not overspray.**
- 3) **Remove the wooden lid that covers the feeder can from the top of the package and sharply bang the package on the ground to shake all the bees clustering around the syrup can and the queen cage to the bottom of the box. This allows the removal of the feeder can without clinging bees.**
- 4) **Take out the feeder can from the package box and the queen cage. Put the lid on the top of the package temporarily to prevent the bees from coming out of the opening where the can feeder was removed.**



Spraying a package of bees with sugar syrup
Photo courtesy of honeybeesonline.com



Removal of can feeder
Photo courtesy of honeybeesonline.com

- 5) **Check the queen to make sure she is alive. Remove the cork or any cover blocking the candy end of the queen cage and poke a hole through the candy with a nail or a matchstick, being careful not to impale the queen. The hole should be large enough so the bees can release the queen within 24- 48 hours, but not so large that the queen can get out immediately.**



Removing the cork covering the candy plug
Photo courtesy of honeybeesonline.com

- 6) **Place the queen cage vertically between two frames in the middle of the hive, with the candy end up. The screen on the queen cage should face either the right or the left of the hive and not the comb. Bees should have access to the screen face of the queen's cage so that they can feed her and receive her scent. Other way to insert the cage is to place it tightly between the top bars of two combs, screen face down. The bees will eat through the candy plug and free the queen.**



Queen cage between two frames
Photo by Wendy van Dyk Evans, Bugwood.org

- 7) **Remove the lid from the hole in the top of the package and hold the package box, topside down over the hive and shake the bees vigorously into the empty space left by removing the four frames. Continue shaking until it is empty.**



The bees are shaken into the hive
Photo by Wendy van Dyk Evans, Bugwood.org

- 8) **Replace the previously 4 frames back into the hive gently to avoid injuring the bees. Some beekeepers shake out the bees without the removal of any frames from the hive. Some bees will remain in the package box. Place the package box on the ground in front of the hive with the opening toward the entrance, so any remaining bees can move into their new hive.**
- 9) **Gently place the inner cover on the hive so that not to crush any bees. In doing this you may have to wait for the bees to go down into the hive for a short time.**
- 10) **Set up the feeder can, feeding holes down over the hole in the inner cover, so that the bees have a food source to stimulate comb building.**

11) Add an empty hive body over the inner cover and cover the hive with the outer cover.



Adding pails of sugar syrup, upside down, so the bees will have something to eat right away.

Hiving process is now complete. By the following day the bees will make short orientation flights and become accustomed to their new home. After hiving the bees the colony should not be disturbed for a week except for refilling the feeder with syrup if necessary.

Managing colonies of package bees

The success of a package colony depends on the availability of food (nectar and pollen) in the area, and on the queen condition. A colony may fail to build up and establish itself in the lack of food, and if the queen is failing.

It is most important to give plenty of sugar syrup to assist the colony to develop and to check regularly the presence and performance of the queen. Failures to do this will setback the colony.

Feed the bees immediately upon hiving with sugar syrup 1:1. When undrawn foundation are used, bees are fed on ample syrup using about 10-12 kg of sugar (20 liter of syrup) per hive to draw two boxes of foundation. The bees need at least four kilograms of syrup for every kilogram of wax they build.

Continue feeding until all foundation frames in the hive have been drawn into comb and the bees stop consuming the syrup and begin to store honey. Several types of feeders are used in feeding sugar syrup. These are:

- **The frame feeder, used inside the hive**
- **Miller feeder, used on the top of the hive**
- **Boardman entrance feeder, which is used at the entrance and allows checking and refilling the syrup without opening the hive**
- **Pail feeder, which can be inverted over the hole of the inner cover**

The easiest way is to invert a plastic jar or can over the hole in the inner cover. This can be made by making 10-15 small holes in the lid of the jar or can with a very small nail to prevent leakage of the syrup, with the sharp edges point inward.

Aft 5-7 days of hiving, the colony is checked to see that the queen is released from the cage and is laying eggs. If the queen is not out of her cage, release her and remove the empty cage. Check again after a week or two for eggs in the cells and capped brood. Shortage of brood, eggs and larvae indicates the queen is failing or absent. If the brood is patchy or unsatisfactory, a new queen should be introduced or the colony is united with another colony.

When the bees have drawn 8 foundation frames in the first hive body, a second hive body is added to provide space for expansion. A frame or two of brood and a frame of honey are moved into the second hive body to encourage bees to move up. Add frames as needed.

If the package bees have started with drawn combs, the second hive body of frames may be added four weeks after hiving for the bees to store honey in.