

# **How to Introduce Bees into a Top Bar Hive**

There are, broadly speaking, three possible situations you may be faced with, once you have built your top bar hive, depending on your particular circumstances and location:

1. There are no accessible suppliers of nucleus hives or packages, so your only likely supply of bees will be swarms – but you don't know how to catch or bait a swarm.
2. You can buy a package of bees, comprising a caged queen and (usually) two or three pounds of bees in a wire mesh box, but you don't know how to introduce them to a TBH.
3. You can obtain a nucleus hive, usually on five frames, in a suitably-sized box, but with no obvious means of transferring them from frames to TBH.

So let's look at each of these in turn.

## **The Attraction of Swarms**

Even if you can buy a package or a nucleus (or 'nuc'), there are good reasons to attract or catch a swarm into your TBH:

- It costs nothing, except a little work.
- Swarms are looking for a home, and are most likely to stay put once established. This is not always the case with packages.
- They will have a queen that they are used to (she is their mother, after all!) and, while they may supercede her in a short time, they will do so on their own schedule and without help. Package queens are not related to the bees they arrive with.
- Swarms are enthusiastic about home-building, and are likely to be the least trouble.
- Did I mention that swarms are free?

So how do you find a swarm?

By talking to beekeepers in your area you can establish when the swarming season is likely to happen. In most places, it is likely to begin about a month after the start of the first real nectar flow of the year, when the queen will have laid out every available comb, and stores and young bees are plentiful. It is often triggered by a period of warm, sunny weather, when everything in the bees' world looks promising and they are overcome by the urge to go forth and multiply.

Of course, the real 'no work' way to get a swarm into your TBH is to put the hive where they are likely to find it themselves, and just move in with no help from you. This requires that your hive smells like a place that bees could call home, so get hold of some beeswax – ideally with some propolis mixed in with it – and rub it around the inside of your hive and around the outside of the

entrance. A few drops of lemongrass, citronella or geranium essential oil may also help, but don't overdo it. With luck, scout bees attached to a house-hunting swarm will be attracted by the scent and you will be rewarded by the unforgettable sight of ten thousand bees voluntarily setting up home in your hive.

If you have had some bee-handling experience and you are not intimidated by the idea of catching a swarm and hiving it, you could inform your local police department, fire department and local council office that you are willing to take swarms that are reported to them, and they will add you to their contact list. Make yourself known to other beekeepers in your area whose bees may throw a swarm, in case they are already fully stocked and don't mind a new beekeeper taking it. Alert your neighbours to look out for swarms, too.

Actually taking a swarm can be very easy or virtually impossible, depending on where they are. The perfect situation is to have them neatly arranged on a thin, horizontal branch, at eye level, in an easily-accessible shrub. This does happen, but just as often they are well out of reach in an unclimbable tree, or hanging under the eaves of a building in a busy street. Don't take life-threatening risks to retrieve them, but if you have an assistant and a sturdy ladder and they are reasonably accessible, then proceed as follows:

1. Ensure your own safety first, and that of other people close by.
2. Have ready a suitable container, which traditionally is a straw skep or basket, but a cardboard box will do. Whatever container you use, it will need to be capable of being closed and made bee-tight for transport, but must have ventilation – an enclosed swarm can suffocate very quickly, especially in hot weather.
3. You will, of course, need a veil and whatever other protective clothing you normally wear for beekeeping: swarming bees are usually quite docile, but don't rely on it.
4. A few tools handy to have – secateurs and branch cutters, pruning saw, long-bladed knife (preferably sheathed when not in use) – that sort of thing – and a shoulder bag to carry them in when climbing ladders.
5. The exact methods you use will depend on exactly how and where the bees have arranged themselves, but the idea is to get them into the basket while causing them minimum disruption. Under ideal circumstances, this may involve snipping a branch and lowering the whole swarm into your basket, waiting for stragglers to be 'fanned in', closing it up and taking it away. (There is a video on the Biobees site that covers this process - see <http://www.biobees.com/media.php>)

One of the common problems you may encounter with swarms - apart from being out of reach - is a habit of clustering around the trunk of a shrub or small tree, or a fence post, or other vertical object that cannot be simply sawn through. In this situation, it is often possible to take the swarm by placing your skep or box directly above them, as they will climb into a dark, enclosed space of their own accord.

Having captured your swarm, introducing it to your top bar hive is simply a

matter of gently tipping the bees into the space between the two followers (if you use my hive pattern) or the equivalent in the design you use, and placing top bars over them until the space is covered. Go slowly and smoothly, giving the bees time to adjust themselves to the process, and most times it will be easy and uneventful. My preferred swarm basket is the right width at the top to accommodate standard top bars, so I like to get the swarm in there, add top bars and open the entrance, and leave them there for a few days to start building comb. Transferring them to a TBH is then simply a matter of lifting bars out one by one and placing them in the hive – mostly a fuss-free process (again, there is a video on the Biobees site that covers this - see <http://www.biobees.com/media.php>).

Traditionally, bees were introduced to a hive by 'running them in'. This was developed for framed hives, when there is no easy way to introduce them by tipping them in, due to there being no empty space to tip them into. It can also be done with TBHs if you can arrange a slope from the ground up to the entrance. The process is thus:

1. Arrange a well-supported board, at least 12" (30cm) wide, running from the ground up to the hive entrance, and cover it with an old, clean, white sheet.
2. Take your swarm and tip them gently out onto the sheet, taking care to ensure that most of them land on the slope.
3. The bees will, if all goes well, begin walking up the slope and into the hive. This is a good time to check for a queen – and once she is safely inside, bees will begin fanning air back down the slope, using their Nasonov pheromone to attract the others into the hive.

This 'running in' method is rather more trouble than just tipping them into the hive, but has the advantage that the queen may easily be seen, should there be any doubt as to her presence. Bees will, of course, not swarm without a queen, but occasionally some mishap may befall her between leaving with the swarm and arriving at your hive.

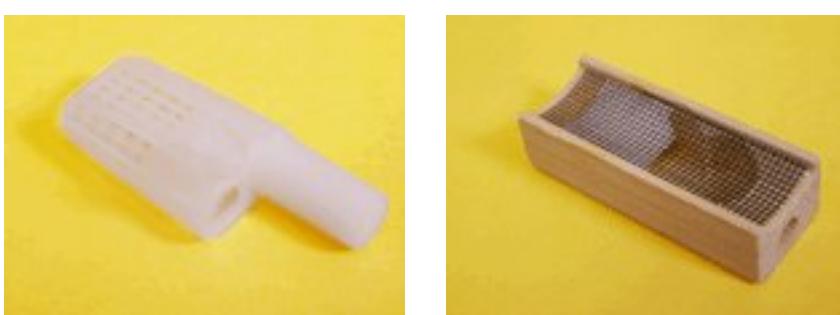
## **The Package Solution**

Items needed:

- Spray bottle with clean fresh tepid water
- A pair of wire cutters
- A nail or something similar in shape
- A spool of wire similar to that used for picture hanging
- Bee brush
- Feeder prepared with syrup mix and ready to go
- Entrance reducer
- A piece of wood or something similar to cover the holes left when pulling the queen cage
- Duct tape
- Marshmallows or fondant

1. When the bees arrive, place them in a cool, dark quiet place to let them calm down.
2. Spray/mist them lightly with sugar syrup 1:1 ratio or plain water
3. Prepare the TBH:
  - Set the bars and follower boards so only the part where the bees will be is open. Make sure there is adequate room to work.
  - Put the entrance reducer in place.
  - When it's late in the afternoon, take the bees out to the hive. Put the two bars you will use to suspend the queen cage in place.
  - Put the feeder in the same compartment with the bees off to one side.

#### 4. Prepare the Queen Cage



*Two common queen cage patterns shown above*

Pry off whatever is holding the queen cage in place. Before you do this have something to cover the hole when you pull the cage so you can work with the queen cage without disturbing the other bees.

Now pull the queen cage out and cover the hole. There will be bees clinging to the cage; you can brush them with your finger or soft bee-brush (or handful of grass) into the hive. You will feel resistance when you pull; just pull slowly and steadily until it is free. Cover the hole: while holding the cover material in place, set everything you just pulled out down, as you will need both hands to tape the cover in place. Tape it down well as you will be shaking this package later and you don't want it opening up on you!

Remove the wood piece the cage is hanging from because it will not fit between the bars, nor will it allow the cage to hang far enough in the TBH.

Cut a piece of wire and fasten it to the queen cage to hang it from, make it longer than necessary so you can just bend it over the top bars when you close them up on it or wrap it around the nail. When you have the wire fastened turn your attention to the candy and what is blocking access to it. If you are lucky it is just a cork, pull it and put it in your pocket. If it is a plastic cage, a piece of plastic will have to be pulled or cut out using the wire cutters. Ensure the cage came with candy (it should have) if not you will need a piece of marshmallow

or home made candy to stuff in to plug the cage up. Ask your supplier in advance. Your queen cage is ready to be hung - suspend it a couple of inches below the bars between 4 and 5, close the bars and bend the wire or twist the end of the wire around the nail and place the nail on the top of the TB. Close the bars on the wire with the nail on top and the cage hanging an inch or two below the underside of the bar.

#### 5.) Prepare the package.



First check to see if the package fits inside your TBH. If it does you will skip shaking the bees in and instead pull the feeding can and just lay the whole package in the hive. The bees will exit and find the queen cage you hung on their own!

#### **Help! The package does not fit in my TBH!**

Remove whatever is holding the can in place - tape or stapled piece of wood, etc. Now with your thumb on the can pick up the package and hit the bottom against something firm. This will jar all the bees down. Pull the feed can out and set it down, be careful not to crush any bees clinging to the bottom! Flip the package over and rock it side to side while shaking the bees out of the opening for the can into the hive.

If all the bees do not come out of the package lay it on the ground open end toward the hive and watch, in a few moments there will be a steady procession of bees heading for their queen they will climb into the hive! They are following the scent of the bees fanning on the landing board!

Now go back and put all the bars in place and close the hive up, Gather up all your tools and equipment.

Congratulations! Grab your camera and watch in amazement and take some pictures!

Come back in 3 days and free the queen if necessary. Remove all package equipment. If the bees have enclosed the cage in comb cut this entire comb away with the cage.

## **Converting From Frames**

It can be done but is not recommended as it is labor intensive and the bees manage better with a clean start. If it becomes necessary here is a method:

Shake and brush the bees off the frames and cut the combs out of the frames. Lay the combs down on a surface that has four or five pieces of twine oriented at right angles to the length of the comb. Place paper, screen wire, leaves, or something at the bottom of the comb to prevent the twine from cutting into the comb. Place the top bar at the top of the comb, bring the twine up to the top and tie securely. Lift the comb and TBH up and adjust the position of the comb. Put it in the hive, and the bees will firmly attach it to the TB in a few days. This method works well for utilizing combs that are taken from feral colonies in trees or combs removed from a dwelling.

As stated all of this takes time. To switch from a conventional to a TBH you can also turn the conventional hive body upside down so that the frames aren't down in the rabbet but are resting on the edge at a level where TB's can be interspersed and drawn. Move the TB's to the TBH, put the frames toward the rear of the TBH and let the bees clear them out, then salvage the wax. Cover the gaps on the conventional frames with cardboard, duct tape, or large leaves until TB combs are drawn or the frames are cleaned out.

A slower method is to have your top bar length the same as your framed top bars and intersperse them in the brood nest until they have drawn comb and are raising brood in them. Then make a split with the top bars into the TBH.

You can build a converter to take bees from frames or Tanzanian (straight-sided) TBH to a Warré or Kenyan TBH using an old brood box and an intermediate board. Essentially it comprises:

1. A normal brood box, containing two full-height dummy (follower) boards, with a crown board and a roof. (If converting from a framed colony, you don't need another box - use the one they are in already.)
2. Immediately under that, a board that is the same length and width as the brood box, with an opening the full length of the frames (or a little less) and as wide as the space occupied by five frames. This sits directly onto the hive that is to accept the bees.

## **Method:**

1. Lift out the top bars from the host colony and place between the dummy boards in the brood box. Shake all other bees in and place stores in their usual place on the outside of the brood frames.
  - 1a. If converting from a framed colony, simply place the brood box onto the intermediate board. Insert dummy boards if there is space for them.
2. Close it up; feed if necessary, otherwise leave alone for a week or two, depending on nectar flows.

## **Theory:**

The bees in the brood box will have to fly in and out by going down through the new hive below them, which will orientate them and get them used to the new box. Because the dummy boards stop them expanding sideways, they have no choice but to build downwards, into the new box. As this is their natural tendency anyway, they will not feel stressed.

When you return after a week or two, the brood chamber should have moved down into the new box and the frames in the brood box will (with luck) be full of honey. As long as they have stores below and there is still a flow on, you can harvest the honey and remove the brood box. From there on, you run the new hive as normal.

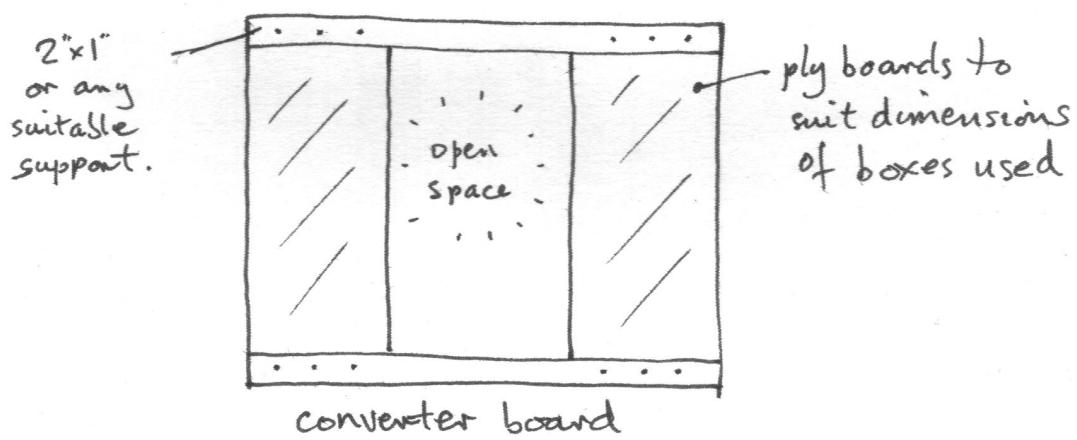
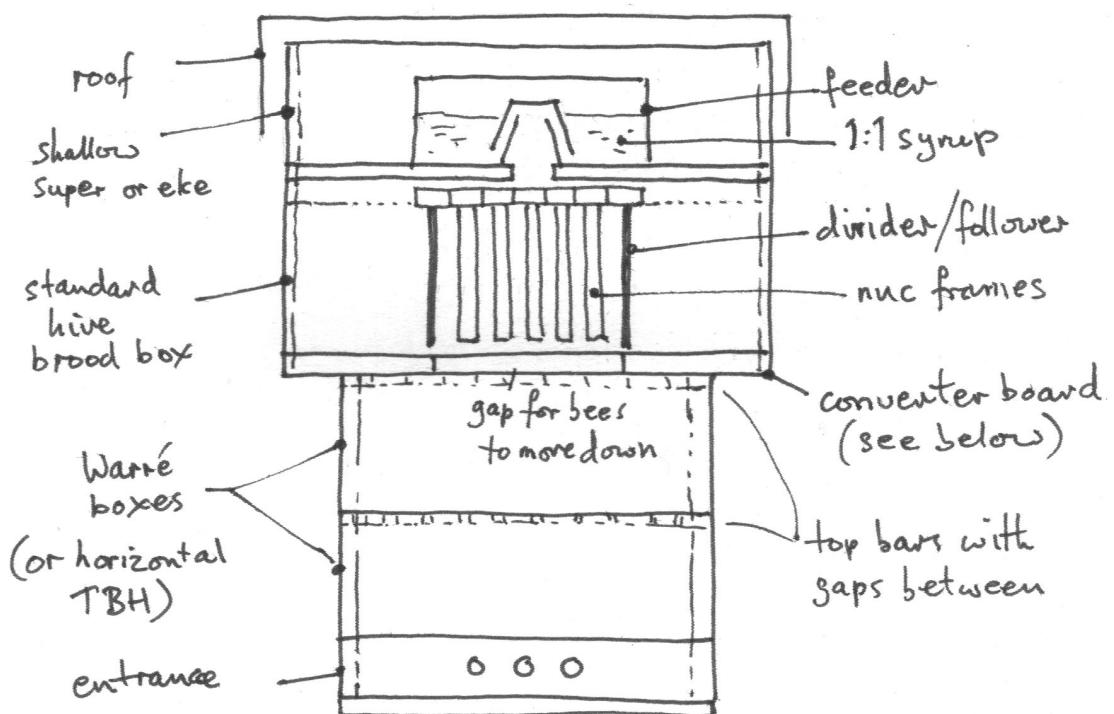
## **Notes:**

This method was designed with conversion to a Warré in mind. If you need to convert to any TBH with gapless bars, you will need to install a set of bars with gaps between them in order for this to work.

For example: make up a set of top bars 21mm wide (wide enough to hold comb with 4.9mm cells) and a set of 10-11mm spacers/shims. Use the shims to space out the top bars, then remove them, leaving gaps. You will only need enough of these to fill the area covered by the brood box.

*See the diagram on the next page for an illustration of this conversion process.*

## Simple conversion from 5-frame nuc to top bar hive



1. Nuc frames with bees are placed into brood box on top of TBH with converter board in between.
2. Divider/follower boards are placed either side of frames to prevent any sideways expansion.
3. Feeder with 1:1 syrup placed above crown board within super/eke to provide extra food for comb-building.
4. Bees will expand downwards into TBH.
5. When queen is laying on new comb in TBH and all brood on frames has emerged, brood box + super can be removed.

(P&L)