



## **Build your own Swarm Safe Beehive box**

This swarm trap hive or bait hive is really easy to make, and when it is not in use as a swarm hive it could also be used as a short term 5 frame nucleus transport hive or a hive to house a split.

Most people probably know about the importance of bees and know of bee swarms, but perhaps they don't realise that a bee swarm is actually the natural way a colony of bees reproduces. Unfortunately each year we hear horror stories of bees being killed by pest controllers when the unsuspecting swarm sets up home in a building wall, or lands in a household where people are scared of bees.

### **We can all help save the bees**

Bees are a critical part of our eco-system but they are constantly under threat. By building your own beehive box you will be helping to save the bees by providing spring swarms a new place to call home, safely away from pest controllers and pesticides.

Well prepared bait hives help save feral swarms from setting up home in your neighbours compost bin, chimney or wall. Another benefit of swarm boxes are they help stop bees from taking up valuable tree nesting hollows or bird nest boxes setup for native wildlife.

If your bait hive succeeds in capturing a swarm you can call me and I can take it away for free and look after it. Or if you want to keep the bees and learn a bit more about beekeeping you can take a class and then have your own backyard beehive for pollination or honey. Please note that there are some important Beekeeping rules you need to following including registration as a beekeeper. To find out more please check my website.

### **Getting started with the build.**

First of all, you will need a clear workspace and a few basic tools. I use a cordless drill and screws to put the boxes together but you could use a hammer and nails. I also use good quality wood glue just to make sure the boxes are strong and secure. You will also need some clamps and a set square to measure and hold it together and a saw to cut the wood or you can ask your hardware shop to cut it to size for you I think some of the big hardware stores might even do this free! Note the measurements are pretty important to get accurate so you can easily install removable beekeeping frames into the hive once the bees come to stay!

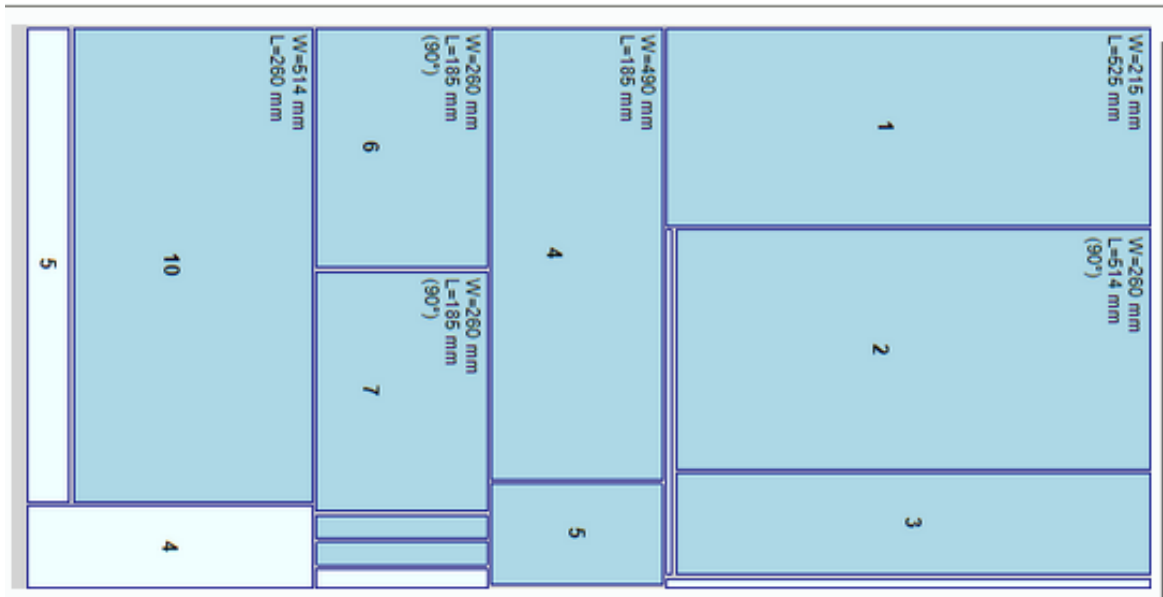
Cutting list (see image on the next page for the optimal cutting diagram)

1 sheet 1220 x 610 x 12mm plywood

1 x Base	185mm x 490mm
2 x Sides	260mm x 514mm
2 x Ends	260mm x 185mm
1 x Lid	525mm x 225mm
2 x Frame cleats	185mm x 25mm
1 pack	Size 8-10 x 24 to 32mm Countersunk screws

Optional Mounting bracket

1 x Side Brace	514mm x 110mm
4 x 14g x 65mm Galvanised Type 17 Batten Timber Screws	



Once you have all the pieces cut, I start with the end pieces and the frame cleats. One cleat needs to be glued and screwed onto each of the end pieces, make sure they line up flush and are both 19mm from the edge. I then drill an entrance hole; the size should be between 19mm – 35mm. drill the hole about 60 mm from the bottom of one of the ends. hint: drill from the outside so any tears in the wood are on the inside.

I then assemble the base and one end piece. First I put some glue on the narrow end of the base, and then I drill and screw the end piece into the base with the frame cleat facing inwards. I repeat this on the other end of the base with the other end piece so each cleat is on the inside. Then I glue the sides and screw them onto the base/ends taking care to make sure everything is nice and square.

Your swarm box is now almost finished. The last job is to fit the lid with four screws and then paint the whole thing with water based exterior acrylic paint – I usually use a natural colour like dark green or mission brown so the boxes blend nicely into the garden.

### Positioning and installing a honey bee swarm rescue hive

I would estimate that most of the swarming in Melbourne occurs from the start of September through to mid December each year and that the remaining secondary swarms mostly occur from late January through to March. So getting the boxes out in time is really important.

A colony of bees will be sending out scout bees looking for favourable nest site which would be a hollow space of about 40 litres, with a small entrance to guard and which is ideally situated anywhere from 2 to 3 metres above ground up to 5 metres high.

Once you have the hive ready to install it is really important for you to follow a few guidelines so you have the best chance of success. I usually install them in a shady spot about 2 to 3 metres high, so on the shed roof, on a tree or along a fence are all good spots. I always face the entrance north and I often leave an old cleaned frame with no honey inside with a wax starter strip and I also use a few drops of lemongrass oil or a commercially available swarm pheromone to help entice the scout bees.



### Hints and Tips for success with honey bee swarm rescue hives (bait hives)

Here are some good recommendations for success with Bait hives which have been adapted from the 1989 – 10 Cornell's University Cooperative Extension publication by Thomas D. Seeley, Roger A. Morse and Richard Nowogrodzki.

Height - from 2 to 3 metres above ground up to 5 metres high

Shade and visibility – well shaded but highly visible. Bees avoid or abandon hives in direct sun.

Distance from Parent nest – not important

Total entrance area – 32mm round opening recommended

Entrance position – near the floor

Entrance direction – north preferred but others OK

Cavity volume – 1.4 cubic feet or 40 litres. Ideally this is about an 8 to 10 frame langstroth size but I find the 5 frame nucs work pretty well.

Dryness and Airtightness – bees like a cavity with a snug and dry fit, especially near the top

Type of wood – many types OK, but bees may avoid new wood. You can “age” the wood with fire burnishing or rubbing with a beeswax block

Odour – the smell of old beeswax or frames is beneficial but you should avoid using old drawn frames for a long time as they will attract wax moth and other pests or disease. Try a frame with a wax strip instead. Commercially available lemon grass smelling chemical swarm lures can be used to mimic the scout bees or I prefer to use a few drops lemon grass essential oil

Good luck with your swarm hive – if you keep your eye on the hive and start to see lots of bees coming and going every day with loads of pollen then you know it has been successful – feel free to give me a call and I'll talk about helping you remove them safely and transferring them into a managed beehive.

Don't forget that scientists estimate that up to 80% of wild colonies will not survive through their first winter so if bees do settle in please don't just leave the box alone – It really is in the bees best interest for them to be looked after by a beekeeper in a managed beehive. ref Cornell's Information bulletin 187. <https://ecommons.cornell.edu/handle/1813/2653>

If you are not successful with the swarm hive but are still interested in getting started in beekeeping you might want to consider attending one of my workshops and buying your own bees. Details on my workshops and how to start in beekeeping are available on the website [here](#), and also on my Facebook page

Happy Beekeeping  
Benedict