



Kenya Top Bar Hive (KTBH)

Building, Populating, and Managing
One of the most basic, easy, simple,
widely used, popular & successful
version of the Top Bar Hive



Standard available stock lumber and trim. No miters, no bevels... all square cut stock; however, I rip the 1 1/4" from 1x12s because you cannot buy 1 1/4" wide lumber. The 1 1/4" is a critical dimension for brood section combs.

Parts List: Sides (2 – 1x12 x 3'-10 1/2"), Ends (2 – 1x12 x 15"), Bottom (1 – 5 1/2" x 3'-10 1/2" x 3/4"), Brood Section Bars (16 – 1 1/4" x 15" x 3/4"), Honey Bars (18 – 1x2 x 15"), Starter Strips (34 – 3/4" x 3/4" triangular chamfer molding x 13"), Cover (1 – 15" x 48" of material and thickness of your choice). Note: 1x12 and 1x2 lumber have dimensions of 3/4" x 11 1/4" and 3/4" x 1 1/2" respectively. You can substitute 1x6 if you prefer not to rip the bottom from 1x12 lumber.

This is basically the same Kenya Top Bar Hive KTBH as found and described by Michael Bush of <http://bushfarms.com/beestopbarhives.htm> I have built and managed this version of the top bar hive for many years with great success. These are all my own photos and my own experiences with this version of the top bar hive.



Nail the bottom to the two sides using large finishing nails (don't use screws on bottom). Space the nails at approximately 7" o.c. This will initially look like a U-shaped trough x 3'-10 ½" long.



Now spread the sides apart approximately to the extent shown here (some where around 15" for now). Yes, the nails BEND and is why you shouldn't use screws for the bottom attachment. No, you don't need to show off your carpentry skills and calculate bevels... it is fine like shown.



Nail the 15" 1x12 end plates to both ends of the sloped-sided trough. Yes, you may now substituted screws instead of nails. In fact screws are a good idea. Again don't cut anything triangular... just leave the ends straight cut. Remember the goal is quick, cheap, and fast.



You need to pay some attention to spreading the side boards and make sure that the sides do not project above the end boards. The dimensions given on material list ensure that your ends should look like those above.



The 13" long triangular starter strips are centered on the 15" bars... and are attached with about 4 or 5 small nails, brads, or pneumatic fasteners. Notice that this mathematically creates a 1" bearing lip on each end of the bar which rests on the sides as shown above. It sits fine on top, don't waste time beveling or trying to make a full contact precision fit.



Now you can use your carpentry skills... or not. I didn't make fancy legs. I just sit the hive on whatever is available (crates, blocks, saw horses, hive stands), however even non-fancy legs are easy to add to the ends, but I will not include legs in this presentation. I like corrugated plastic sign-board left over from political campaigns, etc. for covers (lids). They have held up well over the years. I also found that bead-board wainscot panels are even doing well so far.



You may now be wondering... where do you get the bees and how do you get them in the KTBH. Most friends only have Langstroth hives and are not much help bumming frames off of them. Not worth trying to modify frames of brood from a standard hive. Here you will notice that the entrance is also not fancy. You just leave a 3/8" gap at one end to serve as a top entrance. Nope, you don't need landing pads, or holes drilled.



Back to where do the bees come from? You may have noticed the zip ties in this photo and in previous photo. I use nylon zip ties to strap on wild (feral) bee nest brood and requeen. You can see the bees have nicely attached the feral comb to starter strip, so I could actually remove the zip ties. But not everybody has access to wild colonies or wish to requeen. I will discuss other methods... but you can also use one of the methods as with standard Langstroth... install package bees.



However, package bees are often a hassle and not always available. With Langstroth you have what is considered a better option: A nucleus (nuc) colony... or getting a split from another Langstroth beekeeper. But nucs for KTBH, now that is awkward. My son came up with a conversion frame which can be placed in a friends hive or one of your standard hives if you keep both standard and top bar hives, and it allows to obtain brood frames which are compatible with this top bar hive. More on this later.



In case you didn't notice, the last few pictures are how easy it is to inspect a KTBH. Usually they don't propolis the frames down, because there are no gaps between the frame ends. Another thing to note with a KTBH is that there is no crawl space above the top bars... which is where small hive beetles like to congregate in a standard hive set-up, but not in a KTBH.



Another thing you may have noticed is no plastic foundation... actually no foundation at all. This means the bees can festoon and communicate naturally without having to overcome a bunch of unusual plastic dividers. You can see bees festooning to the left and right of this comb. That is the preferred method of drawing comb as opposed to being supplied with a man-made blueprint which must be drawn out like nothing ever experienced in nature, including a larger blueprint pattern than in nature.



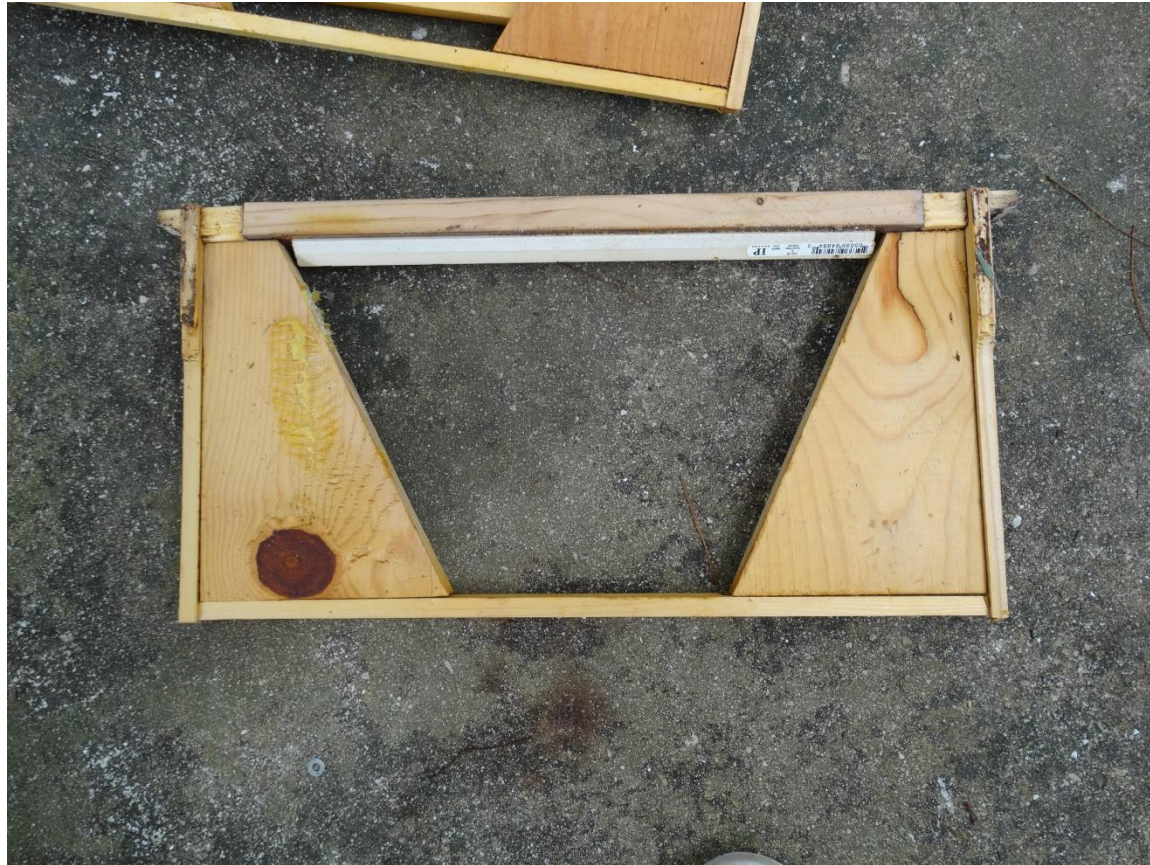
Allowing the bees to work and communicate naturally, results in a smaller cell size than that obtained using plastic foundation. So what's the big deal with that. If you have been beekeeping for any length of time and studied a little about varroa mites, you are aware that many beekeepers use or have been asked to use larger cell "drone" foundation for varroa mite control. Varroa mites like larger cells. Natural cell size is the smallest of cell sizes. It makes sense to me that smaller cell size might be chosen for a reason "naturally" by bees that have learned to survive.



Okay, I mentioned how my son's converter frame which allows brood to be taken from Langstroth hive and be used in this KTBH. So let's get back to that. I can talk about natural, smaller cell size and clean fresh wax for way too long. I have a video of the conversion process using my son's converting frames, but first, the next slides show his prototype and my version which I use with great success. I also made a small KTBH nuc for starting nucs that have frames to fit my KTBH.



My son's version (bottom right) is cut from $\frac{3}{4}$ " thick lumber (or plywood) and is shaped to the outside dimensions of a Langstroth frame, but with a cut-out which matches the interior of this KTBH's dimensions, plus has a notched seat that allows our standard KTBH bar to rest (tight fit) into position. This entire frame (and a few others like it) are inserted in a developing 10-frame. The bees draw the frames out and the queen lays eggs. Now it is a simple matter to remove the top bar portions of this converter frame and install into the KTBH.



My version was simpler for me than my son's. I use a standard Langstroth frame with a portion of the top bar removed to suit my top bars. I cut triangular pieces of $\frac{3}{4}$ " thick lumber and fit inside the standard frame to create the desired shape void to suit my KTBH. You will see both versions in the video which follows... and shows how easy and well this method of populating the KTBH works.



Here is the video of the converter adapter frames in use.



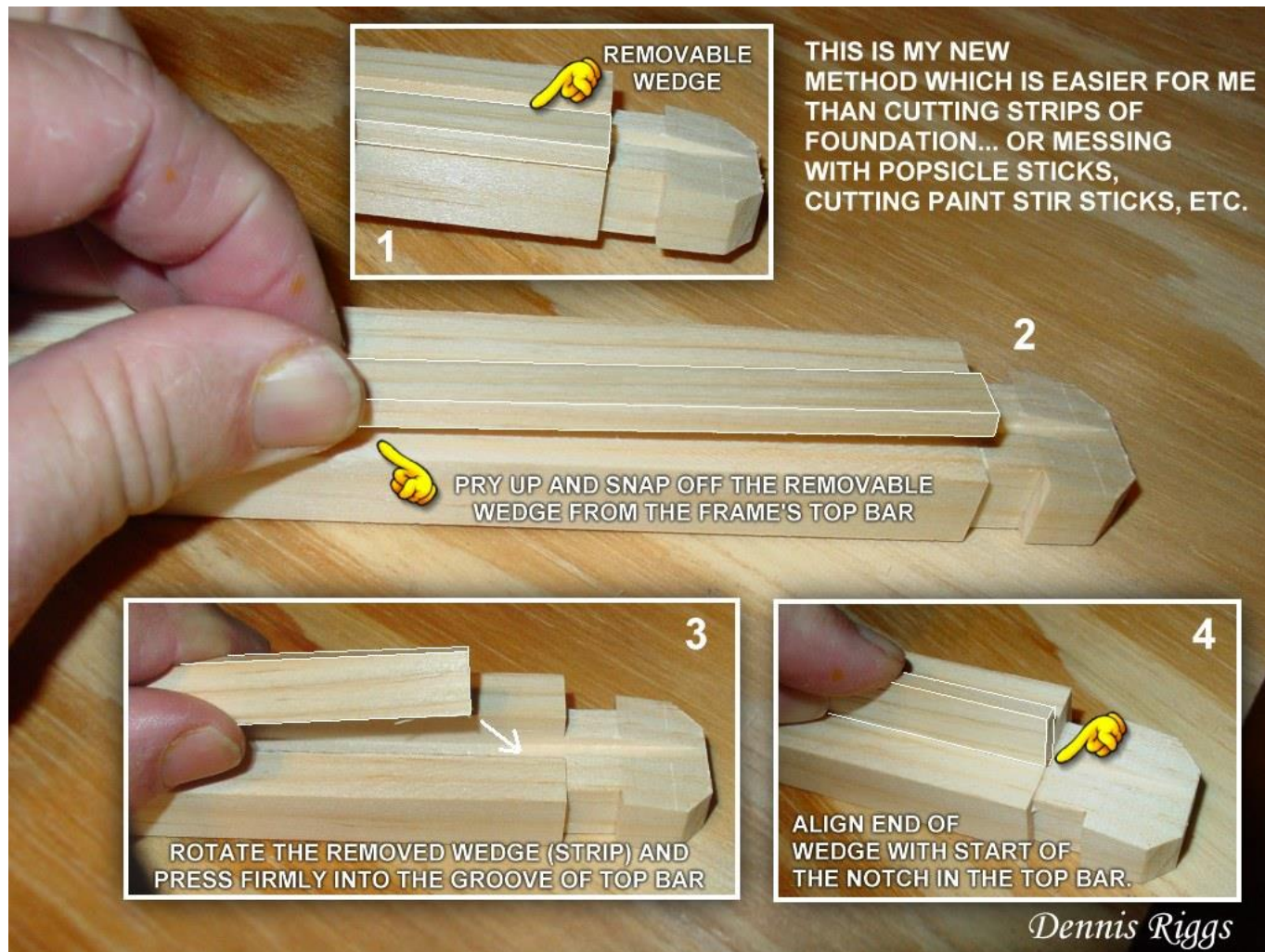
Me, demonstrating to our local association club members in our club apiary “picnic/BBQ day”... the proper way to handle frames and rotate them, so they do not break off from the top bar.



Demonstrating the KTBH to our local association in our club apiary.



Kenya Top Bar Hive (KTBH) not for you?... You want standard Langstroth, but want the advantages of letting the bees make their own foundation naturally and with the smaller, natural cell size... plus be able to keep you existing equipment, then “foundationless” natural beekeeping may be for you.



Here's the easy way, if you have "wedge" top bars. The ones with snap off wedge which can be broken off, rotated, then glued and/or mechanically fastened using brads, small finishing nails, etc. Remember: Do NOT coat any starter strips with wax. Don't do it on KTBH and don't do it on these frames.



Bees need to work their own formula of stronger wax into the wood fibers with their mandibles in order for this to be a strong attachment that will not fail. If you brush, paint, dribble, dip or whatever beeswax onto the wood, it will not make a solid bond and you will have combs falling, breaking lose, melting loose or otherwise fail... just let the bees do it.



My wife, Virginia, holding another version of a top bar hive... at a previous FSBA convention.

THE END

For more information on the Kenya Top Bar Hive (KTBH) build and demonstrated in this presentation. Please visit Michael Bush's page: <http://www.bushfarms.com/beestopbarhives.htm>