

Dreams about the future are always filled with gadgets."

— Neil deGrasse Tyson

What does your favorite beekeeper want for Christmas? One suggestion is a gadget – any gadget will do. There is something about beekeepers and gadgets. For many folks, beekeeping without actual bees wouldn't be quite as much fun but it would still be pretty cool due to all the gizmos and whatchamacallits that we love to play with. I asked a bunch of beekeepers what some of their favorite gadgets, gizmos and got-to-haves are and got a list of toys that maybe Santa can fit into his sleigh.

Instant shade

A well-known adage is that honey bees love sun but beekeepers love shade. David Bailey has figured out how to reconcile that conflict. He takes a large patio umbrella to the bee yard on scorching-hot days and sets it up over the hive he is working on at the moment. The umbrella has a sturdy, compact base that David drags from hive to hive, solving an age-old disconnect between what makes us versus our bees happy.

Heft Test with Bling

Bob Brauer and Brad Kosiba shared their different variants of DIY hive scales. Bob uses an old-fashioned analog luggage scale, an eye-bolt and a small platform to ensure consistent readings. Brad uses a digital luggage scale and simply hooks it under the front porch of the hive. With either, lift the hive, multiply the weight by 2 and you've got a close-enough estimate of the weight. A scale that goes up to 80 or 100 pounds should be more than sufficient to measure half of the winter weight of our hives; 100 pounds of winter stores ("50" on the scale) is a very bountiful amount. Cheap luggage scales can be purchased for less than \$20 in the luggage section of WalMart or Target.

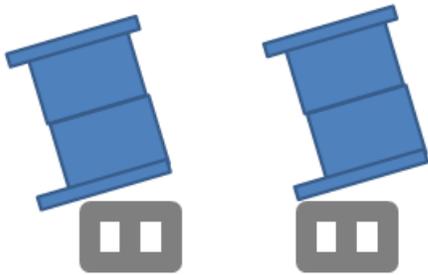
Of course we'll need to account for the weight of the woodenware, wax comb and bees



Why rely on a wild guess to decide how heavy a hive is when we can make a pretty good estimate using a cheap luggage scale? Photo: Robert Brauer

and subtract those from the total. At my house, a randomly-selected screened bottom board, two empty deep 10-frame hive bodies, an inner and outer cover weighed 28 pounds. (This will vary based on type of wood, configuration and other factors.) A random deep frame with fully-drawn empty comb weighed 17 ounces, so 20 would weigh 340 ounces or 21¼ pounds. That's 49¼ pounds for hive components. Conventional wisdom says that 10,000 bees are around three pounds... how many bees are in your hive? Let's be very generous and assume we've got 30,000 winter bees... that would be nine pounds. So now we have a baseline of 58¼ pounds; let's just round up and call it 60. Therefore we should subtract 60 from our adjusted scale weight to guesstimate the weight of our stores. (Note that for simplicity, we are assuming the colony is broodless in winter so we aren't adding a factor for the weight of brood.) For example, if the scale reads "80", we'll multiply by two to get the total estimated weight (160 pounds). Subtract 60 to get 100, our estimate of the weight of the stores in the hive.

One more thing to consider is that if the



Because the pivot points are different, the apparent weight of the hive on the left will be less than the one on the right. Lifting from the sides instead of the back, or lifting from both the front and the back and adding the two values, will give a more precise estimate of the actual weight.

hive is resting on a stand such that when lifted, it pivots at a point other than the far end of the hive, we aren't lifting the totality of the hive (remember Archimedes and his lever?). An easy way to account for this when hives rest on rails as mine do (they sit on a platform made of two 2x4s) is to lift from the sides, not the back. That way, the edge of the side is always the lift point. Using the luggage scale to lift first one side and then the other, then adding the two measurements, will yield the most accurate estimate of the hive's weight.

Reliable Flame

Nerissa Rivera's don't-leave-home-without-it device is a torch lighter. These are \$3 a piece on amazon.com and readily available at many shops. Nerissa says the directed flame doesn't flicker in the wind and is perfect for lighting her smoker. These give the benefit of a blow torch with the ease-of-use and expense of a regular cigarette lighter.



Presto! A Table!

Ryan Chamberlain's favorite doo-dad is a "roll-a-table" that he always takes to the apiary. The concept is the same as a fold-up camping/sports chair. Unfolded, it is a sturdy table that will hold plenty of stuff, up to 100 pounds. Folded up, it is about the same size as a

compact folding chair. It is light and easy to tote around the bee yard. Sporting goods stores carry these; one example is <[here](#)>.

Mega Wagon

In the same category as apiary tables is my "what did I ever do before I found it" device: my heavy-duty garden wagon. Mine is rated to hold about 400 pounds. It is large enough to easily hold two hive bodies side-by-side, my tool box and any other gadgets I might need. My frame rest and smoker hang onto the side. I added a wire-mesh bicycle basket to hold small items that might otherwise get lost. The sides can be removed to make a nice bench. All in all, this is a really sweet ride!



Wow! Eggs!

A gadget that isn't life-changing but it is sort of neat and always sparks conversation in the apiary is my pair of yellow night-driving glasses ("As seen on TV!"). They are great for finding honey bee eggs. The technology that reduces glare without darkening the view makes white eggs "pop" in the bottom of cells. I got mine for \$9.99 at Bed Bath & Beyond but you can get them even cheaper at a gas station.



Beekeeping fun without the stings

Beekeeper Barbie is at a toy store near you! So is PlayMobil Beekeeper and an “Our Generation” doll (an American Girl Doll knock-off), Cassidy the Beekeeper.

One central theme of these dolls is that the beekeeping equipment isn't quite right, as if it were designed by somebody who hurriedly read about basic beekeeping concepts in a foreign language. In fact the PlayMobil beekeeper set-up doesn't even come with toy bees; instead it has plastic butterflies! Maybe they thought bees are too scary for children.

Another consistent feature of these toys is that the hive frames all have permanently-affixed frame lifters. I understand why this is desirable for a plastic frame that is held by immovable plastic doll hands, but it just looks odd. But thinking about it a little more, maybe this would be a great feature to incorporate into our regular frames! Will the Barbie Hive, with all of its innovations, someday replace the Langstroth hive?

Share the fun

If you can't decide what to surprise your favorite beekeeper with this year, I recommend tuition to a bee school! What better gift can you give than the means to be a successful beekeeper? See January 2016's "[Get Thee to a Bee School!](#)" for more information.

So what are you giving your beekeeper this year? There are only a few shopping days until Christmas!

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