"Christmas time is here Happiness and cheer Fun for all that children call Their favorite time of the year"

- Lee Mendelson and Vince Guaraldi

Christmastime is here! It's time to get your loved ones everything they've always wanted, or at least everything they've always wanted that's on sale. At my house, especially this year, that means countless hours surfing the internet.

I see lots of beekeeping items offered online that are useful and well-priced, but far more that range from ordinary things with outrageous price tags to things that go way beyond "buyer beware" ... they should be "buyer don't EVER think of getting this!"

Beekeeping is a highly specialized activity, which means Normal People (aka the general public) have absolutely no genuine understanding whatsoever of what most of our paraphernalia does or costs. And let's face it ... the vast majority of people who have bees aren't a whole lot more informed than Normal People. Every year we have a huge influx of beginners, a very small percentage of whom educate themselves at all. For a variety of reasons, after about two or three years many of that subgroup have moved on to other things before they have really gotten their feet wet with regard to what it takes to keep bees successfully. Also consider the relatives of beekeepers: they love us and want to support us but how many of them know the difference between a worker and a drone, let alone a tangential and a radial extractor?

Say what?

A great example of folks not having the slightest idea of what they are buying comes from a guy whose wife gave him a complete beehive kit from one of the national-chain farm & garden supply stores. I asked him about the kit, and he told me it came with everything he would need to keep bees, including some food. I've never seen a starter kit that included sugar, so I asked him, "Food? What kind of food?" The



This miticide is available from China on eBay. The on-line sales information says it is "perfect for sunny mornings." I'm not sure what the label instructions are because I don't read Chinese. But it must be good stuff, right?

guy showed me a bag of what looked like rabbit food pellets. He was going to feed them to his bees when his package arrived later that spring. Only they weren't food pellets as he had logically assumed (rabbits eat stuff like that, so why not bees?). They were wood pellets intended for his smoker! On top of that, his wife paid roughly \$100 more for the starter kit than she would have if she had bought it from any specialty bee supply store. If she had "shopped smarter" she could have used the savings to send her husband to bee school and still have money left over! (See January 2016's "<u>Get Thee</u> to a Bee School" for information on the benefits of attending a bee school.)

Similar is the case of people not knowing that they do in fact need something. A woman asked me how to install a bee package she had just purchased (good for her: she gets 100 points for asking questions!). I demonstrated how to use a hive tool to pry the lid off the package and then finagle the can out of the box. Pointing to the hive tool, the woman asked, "What's that?"

"It's a hive tool," I said.

She replied, "I don't really need one of those things, do I? I have a screwdriver at home." That led to a long explanation of the countless things that a hive tool is used for, and how a screwdriver may work fine to get the syrup can out of a bee package but it just doesn't fit the bill for anything else we do.

I got to see an extreme case of this same sort of thing when I was asked to come out and take a look at a fellow club member's hives. Getting ready to commence the inspection, I said, "Where's your smoker?"

He said, "Umm... I don't have one."

I said, "Okay, I've got mine in the car. Do you have any smoker fuel?"

He replied, "Umm... nope." Things went downhill from there.

What a great idea!

Another category includes things that look like great ideas, but if we scratch below the surface, they come up short. I'm sure we can all think of examples of these in beekeeping-dom.

One that was extremely popular among Normal People a few years ago was the Flow Hive. This is an extremely clever contraption that allows honey to be extracted directly from the hive by using special frames that, when manipulated with a crank, cause the honey to flow through a spigot in the back of the honey super and directly into a container, without removing any frames or disturbing the bees at all. What could be simpler? This beekeeping stuff is a piece of cake!

Please don't get me wrong – I'm not critical of beekeepers who experiment with Flow Hives, my concern is with Flow Hive Beekeepers. The difference is whether the Flow Hive is viewed as one of many tools that can possibly be employed as part of the greater task of beekeeping or whether it is viewed as an easy way to keep bees. In the latter view, the one that I believe most of the general public were presented with, all we have to do is stick a Flow Hive in the backyard and pour bees in. Then we go out in the fall (that's harvest time, right?), turn the spigot and get our honey. How easy can you get? Why doesn't <u>everybody</u> do that?

Need I mention that the ordinary hive components that come with the Flow Hive (8frame brood box, inner/outer cover, bottom board) are priced way above regular bee-store prices? And it is ironic that many of the same people who squawk at the price of a low-budget extractor will line up to pay hundreds of dollars for a honey extraction mechanism that only works on a single honey super.

The Varroa management arena is also fertile ground for "great ideas" that leave a whole lot to be desired. I can think of one product that has a very small but almost cultic



I made this English Garden cedar-shingled hive top for a friend. It is certainly beautiful. Too bad it doesn't add one bit of function -- an old piece of plywood would keep the rain off the bees just as well. Fortunately, art for art's sake isn't a bad thing, and keeping the rain off is a bonus!

following. Based on the accounts I've read and heard, it replaces inexpensive, effective, easyto-apply miticides with a very expensive, cumbersome device. The treatment is very harsh on colonies, takes the better part of a day to apply per hive, would have to be used several times per year and isn't backed by directlyrelevant, high-quality academic research. What a great idea!

To be fair, Varroa treatments come and go all the time and we don't need to pick on any single one as "a great idea... not!" A good example is Sucrocide, which came on the market right about the time I started my beekeeping adventure. This was a sugar-based liquid miticide that was applied by removing every frame in the hive and spraying the solution first on one side and then the other, being sure to coat every bee. Since it was a "flash" treatment that only affected the mites on the bees at the time of application, it was necessary to reapply many times over the season. Lest you rush out to buy some, those darned academic studies, which always seem to have a way of spoiling our fun, showed that it

was no more effective than doing nothing at all.¹ But it was a great idea!

Not bad but... do we need that?

In beekeeping, we have lots of ways to spend extra money that may be left over after we buy what we actually must have. For example, a friend once had a whole bee yard with nothing but absolutely gorgeous cedar hives. Styrofoam, plywood or old slats from discarded pallets are good enough from the bees' standpoint, but if we've got to look at them, why not make them beautiful? The price was several times what ordinary equipment would have cost, but they looked really nice!

A quite popular version of the same thing is the English Garden hive cover. These can be topped with copper, cedar shakes, slate or anything else that we can afford. They do look very nice but they have zero incremental functional value over a normal flat cover, and in fact create a bit of a dilemma by preventing us from setting hive bodies on the up-turned cover during inspections. Detrimental to function, expensive but pretty... let's get some!

If I haven't yet insulted something that is in your bee yard, how about landing boards? In the bee catalogs, these are often called "hive stands" and that is their original purpose. But there are many reasons that it is bad practice to place hives so close to the ground. So, beekeepers put the "stand" on elevated stands, ending up with a stand on a stand. As a beginner, I thought that's what we were supposed to do (my first store-bought kits included them) and I made some really nice ones in my workshop for my growing apiary. However, these angled entrance extensions have no functional value. Honey bees don't need long runways like airplanes do. They come and go just fine with entrances in flat horizonal surfaces, like a knothole in a tree, not to mention the fat lip of a standard bottom board. The landing boards look classic and certainly

¹ For example, see D Sammataro, J Finley, R Underwood, "Comparing oxalic acid and sucrocide treatments for Varroa destructor (Acari: Varroidae)



Angled landing boards look classic but they have no real functional purpose other than to make us smile. What other reason do we need?

don't cause any harm whatsoever, but they are as useful as dehydrated water.

Buyer beware? Buyer "just don't"!

Saving the best for last, the internet allows us to buy beekeeping supplies from whoknows-where that can go beyond extravagant and useless: they can be potentially harmful and/or illegal.

A mundane example is that a search on Amazon for "honey bee mite treatment" brings up lots of offers for generic oxalic acid. The products that are found in the woodworking or home maintenance departments are not labeled for use in the United States as miticides and it is not legal to use them as such. In fact, in North Carolina, only one oxalic acid product is legal to use on honey bees: the one manufactured by Chemicals Laif under the brand name Api-Bioxal. This is the only one that has official dosage and application instructions. (Note: the <u>only</u> honey bee varroacides that are legal in North Carolina are found in the list here: http://www.kellysolutions.com/nc/showproduc tsbypest.asp?Pest ID=ILBMABA01.)

Amazon is also a great place to pay much more for the same item than we would at the bee supply store. For example, today we can get a two-pack of Formic Pro on Amazon for

control under desert conditions", Journal of Economic Entomology, 2008 Aug;101(4):1057-61. <u>https://pubmed.ncbi.nlm.nih.gov/18767709/</u>

\$25 versus the same thing at the beekeeping store for \$16.

Amazon will also will sell us a quarterpound of pine needles to use as smoker fuel for \$9.50! Let's ignore the fact that we can buy a bale of pine straw, probably 40 or so pounds, for \$3.88 at Home Depot.

Too-clever beekeepers use the internet to buy miticides which may be legal elsewhere but are not approved for use in the US. For example, Bayvarol (flumethrin) is legal in Europe and Canada but not here. It isn't up to us to decide which products are or are not appropriate for Americans to use – people with far more information and experience than you or me make those decisions on our behalf in order to protect the public, the agricultural industry and the environment. Some people aren't content with the variety of effective miticides we have in the US market, spanning a gamut of choices for ease-of-use, time-of-year, mode-of-action and chemical category (synthetic versus non-synthetic); they want to be rebels and draw from other country's options. Often those options are equivalent to ours or are ineffective compared to ours, but that doesn't seem to matter.

A quick check of eBay shows that we can get products with the same active ingredient as Apistan (fluvalinate) direct from China. One of the product descriptions says it is "perfect for sunny mornings." Hmm. These folks obviously know beekeeping, so we needn't worry if the dosage is correct or the application instructions are safe and effective. Let's get some! While we are at it, let's see if they have cheap medicines for our children!

Scrolling further down the eBay offerings, we find an interesting miticide from Ukraine. It is a tablet made from amitraz (the active ingredient in ApiVar) and thymol (the active ingredient in Apiguard). That's an interesting, and odd, combination. The instructions say that we are supposed to light the tablet and while it is smoldering, shove it into the hive entrance. Then plug up the entrance and wait 20 minutes.

Does it even work? Well, once again those academic studies spoil a good idea: the answer is "no".² Even if it did work, what are the health risks of accidentally inhaling amitraz smoke, or thymol smoke for that matter? What testing has been done to answer that question? Are we to trust the Ukrainian Consumer Protection Agency, if such a thing even exists?

While we are on this subject, can we please all give a collective "thank you!" to the USDA, EPA, FDA and especially the NCDA&CS for the work that they do each and every day, day in and day out, to protect our health, our bees and our pocketbooks from stuff like that? And can we show our appreciation, and intelligence, by not buying that junk off of the internet?

24 shopping days left...

My intention is not to discourage you or your family from spending money on beekeeping paraphernalia this Christmas. What I'd like to do is inspire you to get even more stuff for the same amount of money, and get stuff that is truly useful rather than crazy trash from China or Eastern Europe. But as Will Rogers said, "Good judgment comes from experience, and a lot of that comes from bad judgment." If despite your best efforts you do end up with a beekeeper's white elephant or just a really good story this Christmas, I'd love to hear about it!

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² Krystyna Pohorecka and Piotr Skubida, "Varroacidal Efficiency of Treatment with Amitraz in Honey Bee Colonies with Brood", December 2018, Journal of Apicultural Science 62(2):285-292.

https://www.researchgate.net/publication/3301216 85 Varroacidal Efficiency of Treatment with Amit raz_in_Honey_Bee_Colonies_with_Brood