

'Bout A 100 – Sideline Beekeeping

EQUIPMENT DECISION

The equipment you buy depends on time, budget and space.

Larry Connor

In General

There are, of course, some subtle differences between a Sideline beekeeper and a Hobby or Commercial Operator. But frankly, most of these are not the least bit subtle, but pretty easy to pick up on. We are calling a beekeeper a sideliner when operating somewhere between 25 to 300, or using my working definition, *a sideliner is someone who has another source of income* (retirement, lotto winnings or most usually a real job) other than bee related activities to pay the bills at the end of the month. For a majority of sideliners, beekeeping is what they do when they want to escape from real work.

Some of these differences come about slowly if the number of colonies creeps up by ten percent each year, or dramatically leap forward when you discover that *you really can* increase one strong colony in April into 16 colonies by the end of the summer and you have the audacity to do this with 20 colonies and survive to tell the tale a year later. Or not, depending on your skill level, weather and dumb luck.

So we start with the number of colonies we have at the start of the season, the *live hive count*, adjusted for those welfare units that barely made it through the Winter and should be put out of their misery. Or so you think. Your plan of management will be different if you are looking at 50 overwintered colonies in March or 250. I think I can almost manage 50 colonies with the car and a loaner or rental pickup, as well as someone (kid, buddy, spouse) who will help when things get busy and extract honey if any is produced. If we follow our theme in this series – *About 100* – we will approach this with

100 colonies at some point in your beekeeping year. I'll let you decide if that will be at the low point or the high point of the season.

There are 100-colony beekeepers that manage out-apiaries by riding their bike to the yard, and have a bee suit, smoker and various supplies locked in a trash can (with a tight lid) chained to a tree or cement anchor. Then there are 100-colony beekeepers with the latest diesel-bleaching monster trucks with dual air conditioning, so they can cool off between hives. You will have to find your own transportation system, but at some point in the operation of an apiary you will need to move honey supers or honey containers. I still like the image of bicycle beekeeping. It would seem to be so civilized if it never rained or problems never developed in the apiary.

Equipment – It should be pretty obvious that you will need a home for these bees, since the practice of leaving them in screen and cardboard boxes is not well perfected. Do you want to make your own equipment, assemble pre-made equipment or take advantage of the supply companies that now offer fully assembled *and* painted hive bodies, and use frames with foundation installed.

Build it yourself – I am in general awe of those folks who are really gifted in the woodshop. I always wanted to be that person, but family needs and my highly evolved ability to transform one small project into a huge mess pretty much scared me out of the garage. But even for the most unskillful person a few items, like hive stands, drip boards, and migratory covers are within a realistic skill level. The fact is that most beekeepers are forced to build things they cannot live without that most bee supply companies do not sell, or sell at such a huge price that it seems unreasonable to take up catalog space for the darn things.

At other times, when I look at most of the equipment for sale in the catalogues, and the woodshop tools I would need to make a solid frame or hive body with proper box joints, I consider it a bargain to pay the price and consider it an investment. Of course there are endless horror stories of beekeepers buying somebody's home-made equipment and how it does not fit with standard stuff, and . . . well, I just remind myself that every buyer should beware of the deeply discounted price. And always ask the beekeeper why he/she is selling something that seems to be in such good shape. Maybe it isn't working for them either!

Assemble pre-made equipment – This makes the most sense to me, and optimizes the cost of the materials against the savings that my fully discounted labor



The temptation of pre-assembled frames and hive bodies is great. Enjoy the smell!

will factor into the matter. It is one thing IF I do ALL the gluing and nailing and painting and schlepping, but quite another IF I decide that this is too crazy or there are too many things that need to be done at the real job that gives me money to support my beekeeping habit. So I hire someone to do the work for me, and spend more than I expected, but OF COURSE I don't realize this until the next Winter when I figure out the taxes and see that I could have purchased pre-made and already painted boxes and frames for the same cost or even less than I had invested when I hired John or Jane All Thumbs to do the work for me! The person who helps you is good at what they do – paid or unpaid (translation: a somewhat willing and very skilled family member) – will make a big difference in your decision-making. Frankly I am amazed at the number of beekeepers who have parents working for them, often for nothing, just to help out and to have something to do.

At this point in the season (unless you are working bees on Almonds or operating in a climate warmer than Kalamazoo), you still have a few days or even weeks **to plan for 2008** and spend some time with a spread sheet or pocket calculator to figure out which direction you should take. Once I had all the answers for these sorts of things, but I must have gotten really stupid lately since I have trouble figuring out which way I should go to add 50 new beehives.

Then there are people who your friends know who are looking for some simple project to do for extra money, or in the case of retired people, some excuse to get out of the volunteer work their spouse has signed them up for, or that Winter cruise of the Detroit River that was such a great deal.

Pickup Pre-Assembled Equipment – Your ultimate choice may be to rent a truck or cargo van and pick up the pre-assembled and fully painted equipment and pay the bill with the knowledge that the equipment is standardized and solid. A few years of this sort of thing and you may never want to return to the woodshop or self-assembly ever again. Until Tax Time, when you have trouble justifying the added expense to yourself, much less to that penny-pinching accountant you hired. So make up your list of needed equipment and email/fax the order off for a quote, and do it right now, in February, before the season is here. Again, for many of you the 2008 season is already here and you are asking what AM I THINKING?

Dangers Of Used Stuff

Is there something I forgot to mention about buying used equipment? Yes, why is the seller getting rid of it? I have friends who read the bee magazine classified ads and look at the stuff for sale and try to figure out who is going out of business and who is getting rid of the old stuff so they can buy some new. I imply no criminal practices in this, of course. But I do have concerns about the person who knows that the equipment being sold is (1) Really, really old and in horrible shape, (2) Loaded with American foulbrood spores or some insecticide residue, and (3) Filled with mousy, moth and beetle destroyed frames.

I hope that a beekeeper with 25 or more colonies has the experience to recognize American foulbrood scales upon inspection of the equipment. Most folks can smell it. Nasty odor, like something died (well, something did die, dummy, the brood!).



When looking at used equipment, even bottom boards, look at the edges and see if they are still tight and well maintained.

Unfortunately there is no field method to recognize brood combs that are contaminated with miticide residues. To this I have a simple reply – Don't buy old brood combs! Some would say NEVER, EVER buy any used brood comb, even if nearly new. But that makes it really hard to purchase nuclei colonies and I support that management decision. So you have to avoid the obvious risks and be prepared to take some small ones.

So, if you do decide to purchase old equipment, limit it to stuff you can clean up, scorch out, or run through a treatment chamber for sterilization. One of the up sides of CCD has been the discovery of sterilization chambers in different parts of the country. They are expensive, but I gather cost less than the box you want to decontaminate. No, I do NOT know where they are, but check with your nearby bee associations, they seem to know this sort of valuable information I always forget.

If you really know the beekeeper you might be able to trust them. Frankly I am not sure I would buy old combs from me if I had them for sale. Which I do not, so don't ask. My point is that it is impossible to know exactly what risks any comb or box of equipment carries with it, so there are too many risks and there has to be a really low price to make this a wise decision. Only one cell of foulbrood can really cause you a lot of hurt if you start spitting and expanding in the Spring.

So, what's the bottom line about sideline beekeepers and equipment? Here is a checklist you will just have to complete yourself – And try to be honest or at least realistic!

1. How skillful are you in the wood shop?
2. How much do you enjoy working with wood and making beehives? Do you have an adequate work area to assemble 100 boxes or will this end up in your soon-to-be former living room?
3. How much time to you have to put into the woodshop? Or, how many demands do you have on your job or from your family?
4. Are you likely to put off a major project, like building 100 bee boxes, until just as you need them? Will the brood boxes you need in April be finished in February or May?
5. Do you have someone who will work doing equipment assembly for you for next to nothing? And do a beautiful job?



Wax moth damage makes this comb unacceptable. True, a strong colony will tear this out and rebuild. Why not start fresh?

6. Do you have the financial reserves to invest in pre-assembled equipment?

7. If offered used equipment, carefully measure it against standard hives to make sure the boxes are uniform and will work well together.

8. If you are thinking about buying used drawn brood frames from someone you know nothing about, **don't**. If you are thinking about buying honey supers, are they well drawn and fresh or partially drawn or brittle to the touch?

9. Do you have a hive treatment facility (I believe most are now using radiation to sterilize equipment) within a reasonable drive and available at an affordable cost?

10. Does this all integrate well with the rest of your sideline operation? Do you have the locations for the hives ready to go? Do you have the bees ordered or an expansion plan for making increase in place? Are you raising your own queens in this operation?

Bee Stock

Before I finish I think it is critical that I mention bee stock, and how you will go about the process of selecting the right one for your operation. In my new book, *Bee Sex Essentials*, I make a huge point of the need for diversity in the apiary, especially in the drone side if you are seri-

ous about having strong colonies. These diverse drone colonies are ideally ones that come from mite-tolerant, disease- (American foulbrood and chalk brood) resistant, Winter hardy, productive colonies that rarely require you to wear a veil.

I used David Tarpy as resource for this book, and mention his name and his research several times. When I sent an early draft of the book to him to edit and review, he made many useful suggestions. But the one I want to share with you here is the need to have at minimum six different (unrelated) drone stocks in your apiaries if you plan to mate queens. The reason for this is based on the work Tarpy did with genetic diversity, where he found that the colonies that were the most diverse had the best chance of surviving natural diseases and were most productive. By relying on six different stocks, you had a total of 12 theoretical drone types, and this is very close the average number of drones virgin queens mate with in the open.

So, by introducing a minimum of six different stocks into your production colonies, you should be producing 12 different drone types and providing good genetic diversity with the least amount of trouble and management.

You are not grafting from these queens, but producing drones in your colonies during the season when you may have queens produce via swarming or supercedure and they provide the drones needed to provide vigorous colonies. Oh, I know some of you are already pushing the *Varroa-mite panic button*. Fine. Plan on using a screened bottom board and powdered sugar system to manage your mite load and *if necessary* use a miticide at the end of the season treatment after the honey is removed.

Don't panic, I will continue to talk about his in the next few months as we look at decisions facing sideline beekeepers as they grow their operations. But the reason to mention bee stock now is simple, it better be on order when you read this.

Whoops! **BC**

Dr. Connor is busy recovering from the production of *Bee Sex Essentials*, which should be delivered about the time this reaches your mailbox. This assumes that boats and trains and trucks and multiple holidays do not completely thwart the process. For details contact abeebooks@aol.com or go online to www.wicwas.com.