

Alternative Beekeeping: Learning Beekeeping in Person, Through Clubs, Classes and a Strong Mentoring Network

Erin MacGregor-Forbes, EAS Master Beekeeper Dec 2009

“Alternative Beekeeping” is increasingly of interest, particularly among new beekeepers. Many are coming to the craft, heeding a call for new caretakers for the bees, understanding that there are forces at work that are causing our honey bee colony numbers to diminish rapidly. Many of these new beekeepers are understandably looking for a different way to keep their bees – and many are learning about beekeeping in different ways. Where once there was a five-week bee school at the local adult education program run by an experienced local beekeeper, there are now internet bulletin boards and YouTube.

I consider myself to be among this crowd of newcomers to the beekeeping world. My first mentors in beekeeping were definitely of the virtual kind. I spent many hours reading BeeSource and learning from the mistakes of others. I got a lot of my early advice from the internet, some of it very good, some of it very bad. Since then I've learned to be very aware of whose advice I am taking. I want to note here that I am still on the early part of my journey in beekeeping and I don't expect to ever have all of the answers. But I do expect my ideas to evolve and develop further with time.

I practice what most old-fashioned beekeepers would consider to be alternative beekeeping methods. I run all of my colonies on screened bottom boards. I do not use antibiotics in my hives on a regular basis. I use the essential oil based Varroa mite treatments. A significant number of my colonies are in all-medium boxes. I ran an entire year of bees on small-cell foundation. I have a top bar hive. I raise my own queens and have been overwintering nucs since Mike Palmer spoke at the MSBA Annual Meeting in 2005. I am open to trying different techniques for managing bees, and for the most part I've been successful. I'd like to share some of my thoughts about the alternatives.

I guess I should start with my philosophy for beekeeping: I believe that as a beekeeper, I should do more good than harm. Let's face it, I steal the bees' honey. I do leave a good amount of honey for my bees for winter – I winter in two deeps and a medium (or four mediums, depending on the hive configuration) – but I do not leave them with everything they stored. I also harvest a pretty significant amount of wax from the cappings of said honey. The bees provide me with a delicious, healthy, amazingly vibrant sweetener AND a source of light and energy in the beeswax. In turn, I feel it is my responsibility to help the bees in the ways that I can.

First and foremost—I feed new colonies. As I tell my students, if bees had opposing thumbs and money, they would buy sugar. (That is, assuming that there was no nectar for sale.) The reason I feed new colonies sugar syrup is to enable them to draw comb, which is literally and figuratively the backbone of the colony. Bees secrete wax as a result of consuming carbohydrates, so feeding sugar syrup to bees allows them to build wax comb at a much faster rate than they would be able to if they had to forage for all of those carbohydrates. Foraging expends carbs as well as brings them in; feeding sugar syrup at the top of the bee cluster, whether with baggie feeder or bucket, allows the colony to process those carbs with the minimum of expended energy. For the bees, this is a BIG help. Occasionally when I find a colony is low on pollen stores, I'll feed pollen as well – usually by bringing them a frame of pollen collected by another hive. Occasionally I will use commercial pollen substitute.

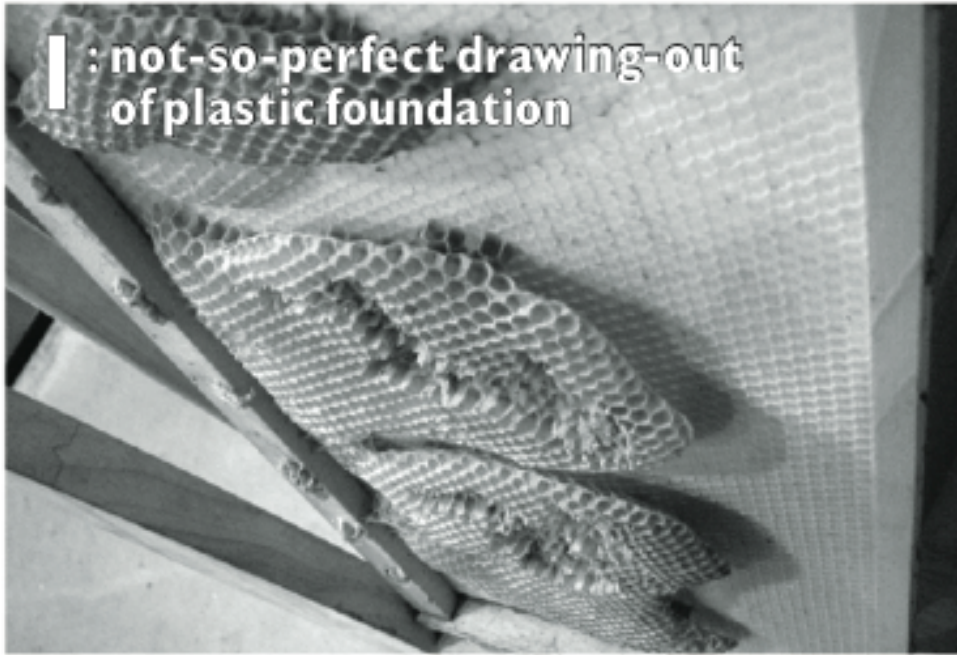
Second – I keep the bees on moveable frames which are easy to manipulate. Moveable frames allow me to evaluate the colony for strength, honey and pollen stores, disease, parasite load, and overall health. The biggest help to bee colonies in the moveable frame is for the beekeeper to be able to get in to evaluate the colony with a minimum of disruption, check the colony, and get out.

Third—I provide safe, clean, dry, wellventilated equipment. As many beekeepers will attest, I do not tolerate old, dirty combs. When inspecting colonies for other beekeepers, I often reject old equipment. I insist on clean, intact, new equipment. Leaky outer covers, warped inner covers, cracked or broken boxes, broken frames – all of these are unacceptable to me. Beekeepers have money and the ability to build and paint a new box.

The bees only have propolis. Trust me, the bees want a leak-free, easy-to-protect hive. Bees are also much happier with a new empty frame and the feed to draw new wax than they are with the old black comb of a prior year's lost colony. Clean hive equipment is very important to colony health. I strongly recommend rotating out old comb on a maximum five-year plan (replace 2 out of 10 frames per box per year with new ones for the bees to draw out.)

And this brings me to the subjects of hive configuration and foundation. As I've already said, I have a top bar hive. I also have a number of hives that I have run on completely foundationless frames. I've also got a few hives that I started from wax starter strips. Under duress, I started two swarms this year on plastic frames (they were the only frames I could buy at EAS this summer, where I caught the swarms) and I've got a few hives on Duragilt foundation. For the most part I generally use wired beeswax foundation.

The biggest advantage to wired wax foundation is that the bees readily accept it and build their combs on the foundation beautifully straight and in the frames. This is why foundation is used – the bees require virtually no supervision/assistance from the beekeeper to build a hive with perfect, moveable frames. The down side to foundation is that there is an increasing body of evidence suggesting that commercial beeswax foundation contains pesticide and chemical residues. The other downside to beeswax foundation is that it requires some skill to embed into frames and can be fragile.

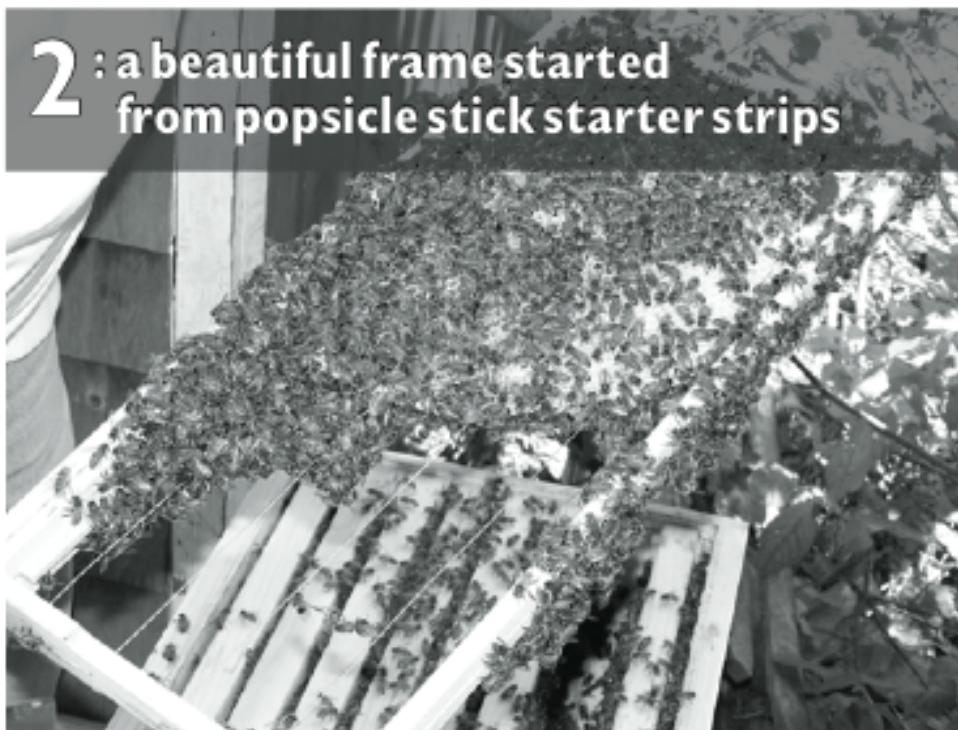


Plastic Foundation

Plastic foundation avoids the residue issue, and if brushed with your own saved beeswax from cappings, is an excellent alternative. Unfortunately sometimes bees will reject the plastic and actually build their combs off of the plastic, particularly when the nectar flow is weak. Feeding the bees when they are drawing comb will help to avoid this behavior.

The third option is to go foundationless. Foundationless hives come in an infinite number of shapes and sizes and include custom-built hives, top bar hives, Warré hives, or traditional Langstroth hives. Remember, Langstroth's original hive design included a V-shaped wedge top, much like many "alternative" hive designs today – foundation was invented quite a few years later. The best thing about foundationless frames in a traditional hive is that the combs are clean and natural and made by your own bees with their own wax and they can make whatever size cells they wish to in their own nest and by using wood frames, they do not attach the combs to the sides of the box as they do in top bar and Warré hives. The traditional boxes are easy to manipulate, readily available, and well-configured to bees' nest-building shape preferences. I prefer traditional wood frames with horizontal wires installed, with popsicle sticks installed horizontally in the groove top. When the bees do it right, in my opinion, this is the best of all worlds. The downside to all of foundationless frames is that the bees often cross up the frames making manipulation difficult or even impossible,

depending on the level of crossing. This requires the beekeeper to remove these combs and results in wasted work by the bees.



Popsicle Stick Starter Strips

The most important part of the Alternative Beekeeper's decision regarding hive design is what is best for the bees, and second, what will be easiest for the beekeeper to manage. Because if the beekeeper finds the hive difficult to manage, s/he will not tend the bees as well as s/he should and so will not be helping the bees.

What is best for the bees:

- A clean, dry, easy-to-protect hive with sufficient space for a healthy cluster and plenty of honey for winter.
- A feeder which is in contact with the cluster of bees upon installation (especially important in our cool climate).
- A way for the beekeeper to treat for mites and diseases if necessary.

What is best for the beekeeper:

- Ease of access to the part(s) of the hive that the beekeeper wants to examine, with a minimum of disruption to the remainder of the hive.
- A hive which is not too heavy or too tall (8-frame medium hives are a

great alternative for those with bad backs or lifting problems).

- A hive equipped with a screened bottom board so the beekeeper can easily monitor mite loads in the summer and cluster movements in the winter.



Crossed Comb Starter Strip Frames

Most important for all modern-day beekeepers, alternative or traditional, is the continued study of bees. Beekeepers must dedicate a significant amount of time learning about bee biology and behavior. This is easily done with modern books and through the internet. New beekeepers have access to research articles, books, internet lectures by scientists and all manner of resources that were previously much harder to find. Beekeepers should also spend an even more significant amount of time honing their bee management skills. Hive manipulations should be as minimally disruptive to the colony as possible. New beekeepers often have a very hard time with this – unfortunately, good hive management is a skill learned best with practice. Working with a real-life mentor is the most valuable tool in developing colony management skills. A new beekeeper who visits her two colonies every two weeks in one year will obtain a similar amount of colony exposure as a beekeeper visiting her mentor's 24 colonies one single time. Plus, in the second instance, the new beekeeper gains the insight that her mentor can provide in terms of colony assessment and hive handling lessons/ feedback during inspection.

Which brings me to my conclusion, that the old ways of learning beekeeping – in person, through clubs and classes and through a strong mentoring network – combined with the modern resources for learning about bee biology and behavior from the experts are the best alternatives for the both the bees and the new beekeepers.

