

# BEGINNERS' BOX

*From Cameron Crane, Liberty County Beekeepers*

A new beekeeping season is well underway. I'm hoping by now you've been getting your equipment ready. In this issue I want to talk about frames in your hives. Your frames are the foundation of the hive.

Frames come in two basic choices: wood and plastic. I very strongly recommend going with wood frames. I think the all plastic frames may be fine for beekeepers living further north where they do not have the problems and issues with the small hive beetles that we have here in Texas, especially the southern and eastern parts of the state. The plastic frames have little slots in the plastic along the sides. As I help other new beekeepers, the few times I have seen some that have purchased and installed the all plastic frame, those hives appeared to be battling with hive beetles much more. Those few cases where I've seen all plastic frames, every one of them had numerous hive beetles hiding along the side in those frames. The slots in the edges of the frames are too small for the bees to chase the beetles out, but plenty big enough for the beetles to hide in. I've come to view the all plastic frames as hive beetle condominiums and you don't want to provide such adequate housing for small hive beetles. Do yourself and the bees a favor, stick with wooden frames.

Foundation: Wax or plastic? This becomes a tough choice to make. There are pros and cons on each side. My first years in beekeeping, I was using wax. I got a good friend into beekeeping and he was using plastic. As we were building our number of hives from removals and swarms, I saw in hive after hive just how much the bees preferred wax foundation. As the bees worked at drawing out the comb on wax, they would start drawing out over a much larger area. On the plastic, the bees would only draw out the area where they were working and not draw out comb any further away. This convinced me that wax was the way to go because it was best for the bees. I always bought the wax with the vertical wires in the foundation but I did not add the cross wires as that chore was very time consuming. I found that not adding cross wires wasn't much of a problem if those frames went into a hive very soon. If I had frames done ahead of time and stored them in the garage after a few weeks of the summer heat the wax foundation would warp- sometimes badly. I quickly got to where I didn't put the foundation in until I had a hive ready for those frames. Other experienced beekeepers tell me you will have trouble extracting frames with wax foundation if you don't have the cross wires. I'm fortunate to have a larger radial extractor and have not had a problem with frames "blowing out". I can see that it would be a problem in a smaller tangential extractor (one where you have to spin one side then flip the frame and spin for the other side). Best practice would be to add the cross wires if you choose to go with wax.

Plastic foundation's advantages are for the beekeeper. They offer a considerable saving in time and are much easier to install in a frame. Frames with plastic foundation don't have to be handled as carefully as wax foundation. Once drawn out with comb, care should be taken in handling frames, wax or plastic foundation. Another advantage to plastic foundation is that the larva of hive beetles and wax moths cannot chew through it. This greatly slows the spread if an area of the hive becomes infected with hive beetles or wax moth larva. If caught really enough through inspections remove the infected frame(s) and replace them. Did I mention that bees don't like plastic foundation? I've read quite a few articles on overcoming the bees' dislike to draw comb on plastic foundation. The top recommendations include starting a new package of bees on wax foundation, introduce new frames with plastic foundation only when the bees really need it. Crowded hives (lots of bees) will draw out plastic foundation quicker, but then you are also creating the same conditions that encourage the hive to swarm making this option a careful balancing act. Many people report that adding additional wax to the plastic foundation eliminates the bees' dislike of the plastic. Adding additional wax to the plastic increases the time to prepare those frames. Most new beekeepers don't have the extra wax. I tried to add extra wax to the plastic with a small trim paint roller as the recommended method. I

found the very cheap and inexpensive trim roller I got at a box store was too flimsy and the roller part didn't hold much if any wax except in the center core that dripped everywhere- it was an in-effective disaster! Having the wax melted, I grabbed a small cheap paint brush and was able to coat 20 frames with extra wax in about an hour. Be careful working with melted wax. Wax can be messy and is hard to clean up. I have a buffet warmer with double pans that barely gets hot enough to melt the wax- IF I wrap the sides and keep it covered it will melt wax enough to use. What I like about the buffet warmer is that it will not get too hot to burn the wax or ignite it. Wouldn't it be nice if the manufacturers of plastic foundation were adding enough wax for the bees to like it?

My recommendation is that if you have a few hives to stay with wax foundation. If you are growing into a larger operation, then plastic foundation has some advantages to consider, but the bees aren't going to like it. As always, find what works best for you. Beekeeping is about making choices.

TBA Summer Clinic is shaping up to be a fantastic event! The planners and Montgomery County Beekeepers have put together a line-up of classes sure to provide learning opportunities for every level of beekeeper.

Joyful Beekeeping,

Cameron Crane