"Too much of anything is bad, but too much good whiskey is barely enough."

— Mark Twain

A common theme among the beginner and novice beekeepers who I teach is that they often agonize over the wrong things. For example, some people will call out the National Guard if they have a few small hive beetles running around but are blissfully complacent about testing for Varroa mite infestations. Along those lines, I was recently asked a perfectly logical question, one that I've heard many times before: "When you harvest, how do you know if you are taking too much honey off of the bees?" This came after a discussion of honey plants and an attempt to impress upon the class that summertime in Piedmont North Carolina is typically a long, dry slog with a very paltry (if any) nectar flow. The question arose from the beginner's fervent desire to ensure that his bees don't starve during the summer.

But here is the thing: I never worry about "taking too much honey off the bees" or for that matter whether the bees will starve in summer. I don't have to, because I am a beeKEEPER, not a beeHAVER; I manage my livestock in such a way that I prepare for their future and ensure their health and wellbeing. At least that's my goal.

Here, in a nutshell, is my post-harvest avert-starvation strategy. You may do things differently – that's fine – but if you do, maybe you'll still get some useful tips out of this.

How many supers to "leave for the bees" after the spring harvest

I have a fixed number of boxes that make up the honey bees' year-round living area. The volume is somewhat important but the configuration (what type of boxes make up that volume) isn't (see February 2016's "Standard Equipment: How Standard Is It?"). For me, the year-round space is made up of two 10-frame deeps. For you, it may be two deep boxes, three medium boxes or some other configuration. These boxes make up the bees' permanent

A tall stack of supers is a nice thing to see in spring. But in summer, it can be a sign of poor apiary management.

living space and should, by design, be more than sufficient for brood-raising and storage of enough honey to get through the summer and later the winter. But it shouldn't be too spacious – more space than the bee population can cover creates major issues with respect to small hive beetles and wax moths.

During the honey flow (around here, that's in April, May and maybe into June), I add boxes to capture the honey that I intend to harvest. This is the "surplus" or "excess" honey. The reason that humans keep honey bees is that honey bees can store extremely large quantities of honey, much more than the bees actually need for their own purposes. If someone is philosophically opposed to taking honey away from their bees then they should keep mason bees or another species that does not produce honey crops (see October 2013's "The Right Bees for You").

At the end of the honey flow (by late June), I remove the boxes that are intended for harvest. That's what they are for.

I do not harvest any honey from the boxes that I have designated as the year-round brood area (for me, the two 10-frame deep boxes). Those boxes should contain the supply of honey that the bees will need to get through the summer. In fall, there is a small nectar flow that hopefully will refill the pantry and provide

enough stored honey to carry the bees over winter.

What will the bees eat in summer?

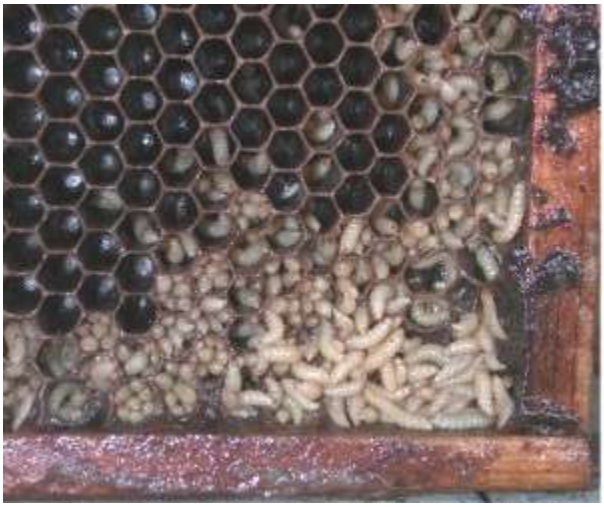
I assess the level of stored honey in the "bees' boxes" (the two deep boxes) a week or two before I expect the honey flow to end. If the "bees' boxes" are light because the bees have been focused on storing honey above, not below, I will go ahead and remove the surplus honey supers (the ones for harvest) a bit early. After doing that, all nectar/honey that the bees collect and store will be stored in the bottom two boxes where I want it. In this way I ensure that the "bees' honey" is in the right place and is sufficient for getting through summer.

At this point, if the hive is still light, I feed sugar syrup to plump it back up. And I monitor the weight of the hives throughout the summer to ensure that they stay heavy. Not only can a booming population eat through a lot of honey pretty quickly, but a hive that is fat with honey can be robbed out by other bees, leaving the pantry empty. Or the colony can swarm, meaning that half of the bees depart, taking as much honey with them as their greedy little honey stomachs can carry (about 1/3 of their body weight).

But I never worry that my bees will starve because if their stores are low, I feed them. Problem solved. See January 2015's "Yum Yum, Eat 'Em Up!" for more information on why and when to feed as well as why and when to stop.

Why not leave surplus supers on the hive?

It can be extremely frustrating and difficult to manage surplus honey supers that are left on the hive "just in case." After spring ends, the bee population declines and it is important to reduce the hive space to an appropriate volume or else small hive beetles and wax moths will have free rein to reproduce at will. If we haven't extracted the honey in those excess supers at harvest time, when we decide we are ready to reduce the hive space the frames may be partially empty or have unripe honey or brood in them. So how do we get that left-over honey out of those unnecessary supers, assuming they



Too much space can result in too many small hive beetles and the chaos they cause. Here we see an explosion of small hive beetle larva and the slime they produce. Photo: Wikipedia

haven't been destroyed by SHB or wax moths? In my experience, doing so is a major pain and creates a lot of waste. This is discussed in the June 2016 article, "Spinning Gold".

Don't we harvest in fall anyway?

Winnie the Pooh, northern beekeepers and even NC mountain beekeepers have vastly different nectar flow patterns than we do in the Piedmont so the timing of their harvests is very different than ours. Don't be confused when reading about fall harvests thinking that that's the way we are supposed to manage our bees here. It isn't! All beekeeping is local and this is a prime example of how practices in one area must be different than practices in areas with different conditions.

At my place, just a few of the reasons that waiting until fall to harvest is a bad idea include:

1. If the colony swarms during the summer, they'll fly off with a large share of our valuable honey.
2. If the colony dies suddenly from neglecting proper management of Varroa mites (which often happens during the summer to our most populous and most productive colonies), neighboring colonies will rob all of our honey, leaving us with a box full of empty comb.
3. As described earlier, when the colony

population declines during the summer, small hive beetles can turn honey-packed frames into an oozing, slimy mess.

4. Spring honey (tulip poplar, fruit trees, blackberry, etc.) is usually considered to be higher quality than summer/fall honey (goldenrod, asters, etc.). Mixing them degrades the taste, desirability and value of our whole crop.
5. It is tremendously easier to separate bees from supers when there is a nectar flow going on, even if it is a light one, versus a dearth. Moving honey frames around during a dearth incites furious robbing of the frames and aggression toward the beekeeper.

Caveat

However, do remember that all beekeeping is local. If you are next to a huge buckwheat plantation, the timing of your harvest may differ from mine. So you may not downsize your hives at the same time that I do, but nevertheless you should downsize them following your harvest.

The important thing is to understand why we do what we do... that should lead to the right decision about timing. This is the fundamental basis of "management": anticipating what will occur and proactively taking actions to ensure our desired outcome.

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