

THE BEGINNING OF WINTER PREPARATIONS

Yes, I said “winter”. I know the thought of thinking about winter in the middle of July seems odd, but there are some very good reasons to start wrapping your brain around the concept.

We are past the blackberries and moving into the hot, dry time of our area’s summer. There are some interesting things that happen during this time:

- The days are starting to get shorter
- The temperatures are rising
- The nectar sources are drying up
- Water supplies are dwindling

How will the bees react to these conditions?

- They will start to reduce the amount of brood that they rear
- They will get more protective of their hives

FIRST, START PULLING YOUR HONEY SUPERS:

If you are planning on pulling honey supers, start checking and pulling. You can do this by frame, or by super.

Frames are generally deemed “ready” when the honey is capped. OR, in dry years (when the bees quit capping early, due to the discontinuation of wax making), when you shake the frame once or twice and nothing comes out.

Additional Notes: If your hives are established enough to have a honey super, those are the frames we are discussing here. Generally speaking, honey frames in the brood chambers are left for the bees. This is because:

- You want the brood chambers to be full for overwintering. If it isn’t filled with brood, you want it filled with food.
- There are two products approved for use with honey supers on: Mite-away Quick Strips and HopGuard. If there was anything else of a “chemical” nature used, then honey in your brood frames have been exposed to it and may be harboring residues. Best to leave them to the bees.

BROOD REARING:

The reduction in brood rearing happens for a couple of different reasons:

1. As the days get shorter, the number of eggs the queen lays will start to dwindle. You won’t notice it so much right now, but as we progress towards, and into, fall, you will. Since we are past the summer solstice, this happens regardless of the weather.
2. Regardless of how much food the bees have stored, they react to the reduction in food coming in the front door. Remember, bees mix pollen with nectar and enzymes to make bee bread to feed the larvae. During a dearth, even though they may find pollen, there is little nectar to be

found. Bees will not raise more brood than they think they can feed, making the dearth a detrimental factor in brood rearing as we start moving towards winter.

Yes, a decreasing population in response to shorter days is natural. However, if the colony responds to a dearth/drought by decreasing its population too fast (even stopping brood rearing all together), they will go into winter weak in numbers.

As many of us have experienced, a smaller cluster's chances of surviving winter is not nearly as good as a colony with enough bodies to keep itself warm. Additionally, a larger cluster can reach more food as it moves up through the hive.

To offset the dearth, we feed syrup. But, feeding syrup during a dearth is a tricky thing. It can produce robbing amongst colonies, for example. I do promote feeding during a dearth, but please exercise caution:

- Reduce your entrance. It is better for the bees to be congested at the opening, rather than acquire a body count trying to defend an opening that is too large. Additionally, it is better to reduce the entrance *before* you have a robbing issue. Once the robbers start getting in, it can be very difficult to stop.
- Use a feeder that keeps the syrup supply away from the front door (no boardman/front feeders!). Feeding with a mason jar feeder through the inner cover is one option (protect it with another hive body). A top feeder or a frame feeder are others.
- Feed small amounts at first, to test the conditions in your apiary. Remember, you might only have one or two hives, but there are probably others in your area, and they will be on the hunt, too.
- Pollen patties can be fed, as well. Though the bees are probably still bringing in pollen, patties also have sucrose. If you are having a problem with robbing, patties may be more helpful than syrup.
- Dearth can be stressful to a colony.

Additional Notes: Again, this is a dearth example, but if you are not feeding and your queen stops laying, this is probably a reaction to lack of food supply. Before deciding you need a new queen, try feeding first. It always amuses me how beekeepers want strong "survivor" traits, and when the bees display this particular one, the assumption is that something is wrong with the queen. In fact, it is the colony saying, "We don't have enough food coming in, so we're not raising babies."

HYDRATION:

Bees use water as a way to help keep the hive cool on the hot days. How do you know if your hive is too hot?

- You may see bearding
- The hive may be "louder" than usual
- The bees are "pinging", or head-butting, you
- They may be aggressive, even chasing you

Nobody wants cranky bees in their yard. But, as the dearth sets in, cranky they may become. In addition to not being happy that the food and water are drying up, they will become more defensive of their hive to protect what they have. Make sure you:

- Have done what you can to ventilate the hive
- Have put out a water source for the bees' use (your neighbors will appreciate it)

Additional Notes: I have found that on really hot days, it helps to put out a sprinkler. You're not getting the hive wet, but increasing the humidity in the air. No, I don't know why this works. But for me and my bees it does, and I offer it as a suggestion.

TREATING FOR VARROA:

We focus on the mites because they are a vector for viruses. Bees feed each other and pass those viruses along. If we don't do what we can, all year long, to keep the mites in check, then a viral load of some kind is inevitable.

Make sure you have a plan in place to treat for mites. There are too many options to list them all here, but keeping your varroa load in check now, and through fall, will help the bees raise the healthy winter stock they'll need to take the hive through until spring.

Remember, treatments for mites are not cures for viruses. Any viruses taken into winter by the bees reduces their chances of survival. This is why it is good to formulate an annual pest management plan.

Additional Notes: This is also a good time to consider intestinal health. The use of a probiotic, particularly during a dearth or after a mite treatment, can be helpful to the bees. The prophylactic use of probiotics are generally considered better than the prophylactic use of antibiotics. But whichever you choose, decide whether you will, or won't, and acquire what you'll need.