Apis m. Esoteria 6c

What==Where==Why

How did you do on Sourwood Honey this year? This really pertains to all bloom seasons. However, in the spring nectar flow the combined blooming time of the different flowers can cover the deficiencies in one. In sourwood season the quantity and quality really show up.

I was talking to a beekeeper in Hiawassee GA. who said he had virtually no sourwood nectar in his area this year. His friend across the county had a very respectable crop. I report the same situation in my neighborhood. We had a nice long sourwood bloom (about 6 weeks). I collected a nice amount of sourwood and ½ mile away by neighbor did much less.

This is because around every corner here in the mountains the weather is different.

More complicated than that, you have 6 factors affecting the nectar production and honeybee collection.

1. Frost – you can worry about it, but you can do nothing to prevent it. It can happen up until the 15th of May. You do have to be able to read the frost damage which is different for every plant and tree. You see immediate frost kill on leaves within 3-4 days. Does that frost kill get the small blooms at grass level or are they protected by the warmer ground? Chill for 3-4 days can cool the ground moving the frost line closer to the ground every night. What you may not see is the damage done to flower buds that are very tiny early in the spring, like the sourwood which bloom around the end of June. So, this year did some of the sourwood buds get frosted because they were on the colder side of the mountain?

2. Wind – Wind can negate the affects of frost. High wind can rip the leaves and blooms right off the trees. This affect is pretty obvious. After the blooms are open and producing nectar a strong breeze can shake the nectar out of the flowers. In tulip poplar trees this is obvious and you can see the shiny sugar water on the leaves. There is a lot of nectar in a tulip poplar flower. Sourwood bloom clusters are bells, hanging open side down. Any blossom like this can be affected by not very much breeze. The only way to monitor this damage in the sourwood

tree is to watch to see if the bees are working the blooms. If they are, there is nectar.

3. Ground moisture – measured at plant root level. When looking at garden size flowers the moisture needs to be in the top 6" of soil. With a tree the top soil can be dry but the moisture needs to be at the 4-6' deep root level. You don't have to dig a deep hole, just be cognizant of the frequency of rain and the amount soaking into the soil. Six inches of drizzly rain over a week is better than 3" overnight with lots of run off. It takes about 5 inches of rain to create 1 inch of moisture a foot deep. I monitor the soil moisture by digging an 18" deep hole and looking at the moisture change (or not) going down the side of the hole. Fill the hole back up and dig a new one next week for a new "test". Your soil type will determine how well it holds moisture. Around here typically the first 2" are clay loam. Then you can get into all kinds of "B" profile soil, ranging from red clay, to gravel, to solid rock. At 2' deep solid rock does not retain moisture, but trees can grow on it. Gravel does not retain moisture, but lots of moisture can be passing through. Gravel will support certain trees and grasses. Clay retains a lot of moisture but once saturated, allows run off pretty quickly. Roots love clay but if it is oversaturated it can drown the plants.

4. Temperature – Just like us plants can be killed by too much temperature. They loose moisture at a phenomenal rate in scorching heat. This can create a water shortage around the root while still having adequate moisture away from the big plants. During these droughty periods a ½" of rain overnight only helps the grass. Without consistent moisture the flowers will not produce nectar.

5. Rain -- Oh, the salve that makes everything better. Noah didn't think so. Rain storms with large wind driven droplets can beat the dickens out of the blossoms. And you just hope there is not any hail. We like periodic drizzle at least weekly. If we get too many cloudy rainy days the lack of sunshine can stunt the blooms. It also can keep the honeybees home so they don't collect what nectar is left in the blossoms. I don't know the number but, if sourwood does not get enough sun in May it will not bloom in June.

6. Relief—No, not the pain killer! We are talking about terrain elevation change. Looking out 2 miles. How high is it from the bottom of the valley to the top of the hills? Every 100 feet means the blooms will be one week later. This helps you

mitigate bad effects at your apiary by the honeybees flying out to 2 miles looking for nectar and pollen. It also lengthens you honey collection season.

Now, on top of these concerns you have to judge the size of the population in your bee colony. How much work have you given them to do? Let's start with a package of bees and a new bee hive with no "blown" comb.

First the bees have to increase their population. There are not that many foragers which limits the amount of food stuffs coming into the hive. The new queen may be laying 500 eggs a day. As the bee population ages, more foragers will bring in more food stuffs and the queen will lay more eggs per day. You see this with an expansion of the brood area after about one month.

Did you put the package in a full sized 10 frame deep hive body? This will require the bees to draw a lot of comb. It takes 7 lbs. of honey to one pound of wax. You need a lot of bees to make a lot of wax.

At the same time this population of bees is required to feed the expanding brood area. It takes 7+ cells of food to feed one larva. This does not leave a lot of bees to put up excess honey. So, the outer frames in the "brood box" sit empty for several months. There may not be enough bees in the colony to draw the comb in a honey super and put up excess honey in the first year.

This is why we beekeepers MUST take good care of our bees so they will winter over. There are only 2 things that keep this from happening. Diseases, and starvation. We must treat/manage for varroa mites and make sure the bees put up enough food stores for a four month winter. These practices will result in large and healthy bee populations.