April and May are the most important months for honey farmers in Piedmont North Carolina. Tulip poplar trees, our beekeeping bread-and-butter, are in bloom now. A single tulip poplar flower can produce a teaspoon of nectar and the trees can literally drip with it. The flowers are in the tops of very straight, very tall trees so aren't easily seen, but they are abundant. In typical years, the majority of our honey will be medium golden-brown with the full-bodied taste of tulip poplar honey. It granulates much slower than other honeys, which is a nice bonus.

The tulip polar nectar flow usually starts around April 15th and runs for about a month. A late hard freeze in the spring can seriously impact the nectar flow and resulting honey crop. An early start to our hot, dry summers can abruptly stop the flow. It's a wonder we get any honey at all! But when everything is aligned, our honey buckets overflow with some of the best-tasting honey around.

The tulip poplar nectar flow is definitely a case of "if you snooze, you lose." The tiniest drop of honey that you don't get now cannot be made up later. It reminds me a bit of the Oklahoma Land Run of 1889, when 50,000 people lined up along the Kansas/Oklahoma border, anxiously waiting to claim new lands and new lives. At noon on April 22nd, a shot was fired and the rush was on. By the end of that day, Oklahoma City had gone from a population of zero to 10,000; within a month it had five banks and six newspapers. The available land was claimed all across Oklahoma Territory; if you arrived a day late you missed out.

As it was with the Oklahoma Land Run, when the tulip poplar blooms explode you had better be ready to go with supers in place and healthy colonies at full strength. And you don't want to handicap your bees as they bring in all that nectar.

Many hives or strong hives?

Honey season is also swarm season, which is also the very best time of year to successfully split your colonies in order to increase your number of hives. However you must decide whether your primary goal is to make honey or to make bees – you cannot maximize both objectives at the same time.

Won't twice as many hives produce twice as much honey? It depends on how strong the hives are. A single strong hive has the potential to make a lot more honey than two weak hives. This is due to basic bee-math and the economic production principle called Economies of Scale. Assume that a colony has a nest of such a size that it takes 20,000 nurse bees to care for the larvae in that nest. Also assume, for illustration purposes only, that any additional workers are available for foraging. So if the colony has 50,000 bees, 30,000 of them can forage. If we split the colony into two separate hives with 25,000 bees each, we still need 20,000 bees to service the brood of the productive queens in each hive. So now only 5,000 bees in each hive will be available for foraging duties, or 10,000 all together. In our

simplistic example, we would need six weak hives to gather the same amount of nectar as our original strong hive.

Adding to the decision matrix is the fact that splitting hives, if done correctly and at the right time, can reduce the likelihood of swarming. In this case, having two weak colonies snuggled safely away in their boxes is obviously better than having the colony swarm, leaving one half in a weak hive at home with the other half off in the trees somewhere.

So what should we do? What is the best strategy? There is no one answer that meets everyone's goals. We can play our cards such that we reduce risks and also reach our goals, realizing that we won't maximize all possible outcomes. For example, we can make mini-splits early in the season to reduce swarm pressure and also increase the number of hives. We will take a negative hit on honey production but not as much as with a 50/50 split. Or we can wait until the honey flow is over before making splits, but this strategy requires heavy feeding of syrup throughout the summer and there is a very real risk that late splits won't build up enough to be able to successfully over-winter.

Study the implications of all your choices and do what you think is best. If it doesn't work for you, don't do it again!

Queen excluder = honey excluder?

Grizzled old beekeepers will tell you that queen excluders act as honey excluders; they reduce the amount of honey that bees store in supers. If you've ever watched a plump worker bee wriggle through a queen excluder, you can understand why this is true. I've had some hives that absolutely refused to work through a queen excluder. Others don't seem to object to them very much. Bee colonies have distinct "personalities" and this is one aspect of that.

The primary purpose of a queen excluder is to prevent the queen from laying eggs in the honey supers. This is an important goal for several reasons and shouldn't be taken lightly, although it isn't the end of the world if the queen foils your best efforts and does lay in the supers. But you don't need a queen excluder if there is a continuous band of honey, several inches wide, above the brood nest. A well-behaved queen won't cross this honey barrier to lay above it.

There won't be a nice honey barrier early in the season. So what do we do until the bees build one? That's when a queen excluder is useful. I put one on a hive and leave it until a continuous honey band is established, then I remove it. Another trick is to put a queen excluder on sideways so that about an inch of the frames is uncovered on both ends. A cooperative queen will lay toward the center of the frames so isn't likely to move up via the ends. But the worker bees will use the open ends to go back and forth into the honey supers. This scheme doesn't work perfectly but it helps.

How many supers?

In the old days, beekeepers would put their honey supers on hives all at once. Now that small hive beetles are a concern, the wise beekeeper is judicious about how much unprotected space is on a hive. A very strong hive can protect a large area; a weak hive cannot. I don't put more than two empty medium supers on at a time. When those are about ¾ full, I add more. During the honey flow, I monitor my hives frequently to ensure that

they haven't filled up. If all my supers are completely full, I'm wasting potential honey.

It is common for my very best hives to fill five, six or even seven medium supers. That's a lot of boxes. A simple way to reduce the number of supers that you need is to extract honey more than once during the season. I can extract honey in mid May and put the empty supers back on the hives for the bees to fill up again, then extract a second time in June. This means I only need half as many boxes and frames as I would otherwise. Also, while my best hives need lots of supers, my worst producers (usually ones that have swarmed) may not need any. Taking all of this into account, I only need to own two or three supers per hive, on average.

What's next?

Tune in next month to read suggestions on how to remove and process all of that golden goodness. For now, turn off your computer and go put supers on those hives!

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