



Swarms!

Jennifer Berry



Keeping colonies from swarming is like forcing a dog to not like bacon, a cat to ignore tuna or a fish to breath out of water.

It's April in Georgia (even though you're reading this in June) and it's definitely one for the record books. If you experienced it, then you know what I am talking about. It was a magnificent time to be a southerner (that is, of course, if you're allergy free). The dogwoods, Bradford pears, azaleas, redbuds, yellowbells, peaches and a host of other blooming plants have never been more spectacular.

While those of you in the Northeast experienced warmer than average temperatures this past Winter, the south experienced a cooler, wetter one. The sun did not shine for weeks. Complaints started mounting and phrases like "all this rain" and "will it ever warm up" were part of most conversations. We Georgians quickly forgot about the years of drought this state had recently suffered.

Due to the cold, early blooming plants were delayed several weeks. Then temperatures shifted overnight from Winter to Summer averages. The first two weeks of April saw June like temperatures in the 80s and 90s (10 to 20 degrees above average). And it stopped raining.

Because of the sunny, hot days, early bloomers were bursting alongside the later varieties; hence everything bloomed at once. Usually we experience cycles of bloom that are spread out over months. But not this year. One day the landscape was brown and drizzly, then the next, color was leaping out everywhere. The bees were just as frantic as the plants and their populations exploded overnight. They had spent too many days crammed inside. So when the sun broke out so did the bees.

With all the bloom came daily, record breaking amounts of pollen and an early nectar flow that most beekeepers are still talking about. However, our world

quickly took on a yellowish hue. Pollen found its way onto every surface, inside and out. Each morning before going to work folks had to run their wipers in order to dislodge all the pollen. Tops of hives, cars, driveways, sidewalks, roofs, birdbaths, decks, porches, leaves, grass, dressers, carpets, tables, cats, blankets, and computers were all yellow in color. In the morning pulling out of the driveway the tires would leave tracks. Plus, as one walked through the fields, explosions of pollen bombs would cover your boats and legs.

I felt for those with allergies. People walking around in a daze because they were so tanked up on anti-histamines: eyes red and puffy, swollen nose, looking absolutely miserable. Balls of crumpled Kleenex in their hand, sticking out of their pockets or scattered about on the floor. The nasally voice that keeps apologizing for sneezing for the 100th time.

With the tremendous onslaught of bloom something else kicked in as well. Swarms, swarms and more swarms. By the last week of March, first week of April, swarms were hitting the trees faster than we could count. One day while making splits, five out of the 32 colonies swarmed. The first coated a three-foot section of a branch, which was impossible to harvest. They quickly figured it was time to find a new place to hang out and away they went. The next three flew straight up from the hive into the trees lining the apiary. A bucket truck may have worked well toward retrieving them, maybe. But the final swarm was perfect. They landed at the end of a low hanging branch. The weight of the swarm brought them even closer to snatching height. They were shook into a nuc box and taken to a new site a few miles away.

Keeping colonies from swarming is like forcing a dog



to not like bacon, a cat to ignore tuna or a fish to breathe out of water. It's an integral part of the colony's nature: reproduction. And once they're in "swarm mode," I don't think there is anything you can do to prevent it. Over the years I have tried all sorts of different methods and have found one that works to some degree: creating an artificial swarm by splitting the colony. In the early Spring months, just prior to swarming (construction of queen cups), the old queen and several frames of bees and brood are placed into a nuc box and then transported to a different apiary. The remaining parent colony is given a queen cell, frames of foundation and a super if needed. The colony in the nuc box is still susceptible to swarming so they are given plenty of space by placing them into a 10-frame box and adding a super. Depending on the quality of the old queen, she may be replaced as well.

But, if you tried this or some other method and your colony still swarmed, not all is lost (that is of course if you can locate the swarm and it's within reach). In any case, I always keep a few five-frame nuc boxes in the back of the truck with four frames of foundation and one frame drawn comb. If a swarm comes available and it is accessible, take out three of the frames, bring the nuc box (entrance screened) as close to the swarm as feasibly possible, spritz the bees lightly with sugar water, and then shake, bounce, dump, brush, or jiggle the bees into the box closing the lid. If some of the bees don't make it into the box and they begin to re-form another cluster, more than likely you did not get the queen. Wait a few minutes for the cluster to form, then again bounce the bees into the same box. Close the lid and transport them to a different location. Once there, replace the two frames and feed them sugar syrup and a pollen patty. It will take the foragers a few days to locate nectar and pollen in the new area so it is a good idea to feed them.

If the bees are hanging on a smaller branch, cutting the branch just above the cluster and laying the swarm into the box works nicely as well. But swarms come in all different shapes and sizes and land in all different sorts of locations, positions and areas.

Now, what do we do with the old queen in the newly

caught swarm? I like to keep queens longer than a year or two but my motivation may be different than yours. You may want to re-queen the new swarm.

So how do you know your colony has swarmed? Evidence that your colony has swarmed is a dramatic decrease in bees, no queen, numerous capped or nearly capped queen cells, little to no eggs, lots of capped brood, a disproportionate amount of drones to workers and cells in the brood area (which recently housed brood) are now being filled with nectar/pollen (if a flow is on).

But probably the best indication that your colony has swarmed is actually seeing the colony swarm. Suddenly thousands of bees erupt out of the entrance, pouring into the air, haphazardly taking flight. A cloud of bees encircles the area around the hive and a loud buzzing sound fills the air. Once the queen lands and she is located, the cloud migrates towards her and begins to form a cluster. Within minutes the cluster grows until all the bees have landed. It is an amazing thing to watch. If they are within reach grab a box quickly and retrieve them. It is not uncommon for a swarm to fly away to a different location.

While writing this article two colonies in our breeder yard swarmed. However, just two weeks prior they had already swarmed. These secondary swarms are called afterswarms and they are not uncommon. Depending on population, a single colony can issue four, maybe more afterswarms and each time they do, there goes another huge portion of your bee population (and honey production). Supposedly, the number of afterswarms is directly correlated to the amount of sealed brood. Just to let you know we were able to hive both of the afterswarms and one original swarm with our modified UGA bee lab bucket truck. The picture best describes how we save tax dollars around here.

Now what to do with the colony that was left behind? If you want, let the colony raise a queen. However, there is no guarantee you will have a laying queen at the end of the day. Plus, you are looking at weeks before she will begin to lay eggs and you run the risk of numerous afterswarms if cells are left behind.

Colonies **usually** swarm the day of or the day after the first queen cell is capped. Therefore, you have on average eight or nine days before the first virgin queen emerges. Then it takes her five to six days to become sexually mature. Next there are orientation flights, mating flights, a "resting period" and then finally she begins to lay eggs.



Before I could finish this article we had two more swarms. Maybe I should follow some of my own advice and get to beekeeping.

So the earliest your queen could be producing eggs is in 10 days, but it usually closer to 14 days. So 22-23 days after you colony has swarmed you now (maybe) have a laying queen. That is, of course, if she was able to find ample drones to mate with, navigate her way home, recognize her hive, not get eaten by a bird or a giant praying mantis, or hit by a plane, train or automobile.

Then you have another 21 days before the first worker bees emerge, and then another 25 days (mean age) before they take their first foraging trip. Adding the numbers, that's 69 days (on average) from the time your colony swarmed until you have a new flush of workers foraging. Now granted, there were numerous frames of capped and uncapped brood left behind but there is still a gap in brood production.

Here are some suggestions for the colony left behind. After the colony has swarmed, immediately cut out all the queen cells. Once virgin queens have hatched it is very difficult to a) find them and b) know for sure how many are running around in the colony. If there are numerous open queen cells I'd let nature take over because you really don't know how many virgin queens may have emerged

and survived. Inserting a caged, mated queen into this scenario is a sure death sentence (for the mated queen). But if you catch them in time, cut out all the cells and insert a mated queen the next day or so. Then you're ahead of the game by several weeks. But a word of caution. Before you cut all the cells, make sure you can receive a mated queen within a reasonable amount of time.

Next remove a few frames of capped brood if the colony is well populated. Give the brood to a colony in need, such as a newly purchased nuc, a captured swarm or make a split. Reducing the amount of brood may help deter them from future afterswarms as well.

But if you do decide to let them raise their own queen this may help reduce the occurrence and number of afterswarms. Find two mature, nicely formed capped cells and leave them alone. Cut out all remaining queen cells capped or uncapped. These are the next generation of queens that could take part in afterswarms.

Before I could finish this article we had two more swarms. Maybe I should follow some of my own advice and get to beekeeping. Enjoy the Summer.

See ya! **BC**

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