How to stop honeybees from swarming by creating rain and expanding the hive

This situation poses a problem as the colony is on the verge of swarming. However, since we are at the end of the nectar flow, it is not advisable to allow them to swarm as they would likely perish. The hive is experiencing a high number of drones exiting, characterized by their large eyes without any space between them, indicating their intention to accompany the departing queen in the hopes of mating with the emerging replacement queens. The temperature during the test was recorded as 91.8 degrees Fahrenheit, which is lower than the hottest spots measured at 99.9 degrees Fahrenheit using a flicker c2 camera. The impending swarm can be attributed to the current nectar flow and the large population. It’s worth noting that in the past, bees preparing to swarm may change their plans if it rains, leading them to stay in the hive.

Spraying

To address the situation, I am simulating a rainstorm by spraying the bees with a garden hose. This action causes the activity to cease, including the cessation of waggle dancing and the dispersion of pheromones. Consequently, the bees that were forming an aerial cloud around the queen start returning to the hive, effectively preventing the swarm. Additionally, the spraying helps cool down the bees as they perceive it as rain. While this temporarily halts the swarming behavior, more measures need to be taken to prevent them from swarming once everything dries off.

The issue of limited space for the queen to lay eggs and expand needs to be addressed. If the frames are already full, additional boxes need to be provided on top of the hive.

Following a rainstorm, it is time to disassemble the hive and create more interior space and resources. This involves inserting full dram out frames of honeycomb, which allows the workers to move inside and start filling cells. It is crucial to use frames with drawn comb as it is too late in the season for the workers to build new comb from scratch due to the time constraints imposed by the incoming nectar flow.

Adding boxes

If the old queen remains in the hive, the bees inside may destroy the new queens by chewing open the replacement queen cells. To ensure a successful prevention of swarming, we have added two medium supers to expand the available resources. This expansion allows the workers outside to access the interior of the hive. Over the next few hours, the majority of the bees will migrate inside, occupying the upper boxes. With the availability of more space and ventilation, the queen can find suitable areas to lay eggs without being driven out by the workers. Based on the observation that the bees are already moving in and fewer bees remain outside, it can be deemed a successful intervention.