

closes the harvest, or even where the harvest continues three or four weeks later, no egg laid during basswood harvest can produce a bee that will gather any honey to put in the surplus apartment. But if the queen continues to lay during this thirty-seven days before the close of harvest, and lays 1,500 eggs per day, she will fill about eight feet of comb. If, instead of eight feet of brood, we had, by the absence of the queen, eight feet of comb honey or its equivalent in sections, it will be seen what an addition we should have to our surplus crop—at least thirty to forty pounds. But it is generally rather unsafe to rely on plans figured out on paper, without asking the bees what they will do about it. Actually put to the test no such surprising gain is achieved. I think I can see some reasons against taking away the queen, and there may be reasons I do not see, as well as some reasons favoring the plan. From the minute a young worker gnaws its way out of the cell, it becomes an active factor in the workings of the hive. It helps to keep up the heat of the hive, and before many hours commences its duties as nurse and chambermaid. This sets free older bees that would otherwise be kept busy at house-keeping, and allows them to engage in field labor, and thus every young bee hatched out is practically an addition to the field force, although itself may never gather a drop of nectar.

But this holds good only for such bees as hatch during the honey flow; for what profit is there in adding to the population at a time when all are consumers instead of producers? So, instead of taking away the queen thirty-seven days before the honey-flow ceases, we make the time twenty-one days. Whether we gain or lose by having the queen absent during the last twenty-one days of the honey-flow is a question worthy of discussion and experiment. Is the mere presence of the queen a stimulus to labor under all circumstances, or under some and not others? Ditto brood? Some of my observations point in one direction and some in the other. With my present light I think I would not remove a queen unless to prevent or control the swarming fever, and I do not know that removal for such a cause is a profitable operation.

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We are prepared to buy any quantity of No. 1 Section Honey. Those having such for sale will kindly write us saying the quantity they have on hand and how much per pound they will require for it.

From the American Apiculturist.

## USE OR NON-USE OF FOUNDATION.

IN the June *Apiculturist*, 1884, page 97, I tried to explain why swarms should be hived on starters only, and I gave several different ways to make true swarms in an artificial way. Some years before that I hived swarms in the manner explained.

Since that time G. M. Doolittle and W. Z. Hutchinson have recommended hiving swarms on starters only, and G. M. Doolittle has discovered the fact that bees full of honey and united to a swarm with a queen do not, as a rule, go back to the old home, quite in the same way as recommended by me in the *Apiculturist*, 1884.

But little attention has been given as yet to one point which I think very important. W. Z. Hutchinson's plan of hiving swarms is to use in the brood-chamber starters only in a limited number of frames and at the same time to give a case with sections, if possible, full of empty combs or foundation. The queen-excluding honey-board in such a case is a necessity, but is not essential to the principle. The bees are compelled to store all the honey in the cases, and it is claimed by this plan that more honey can be taken in the sections, but W. Z. Hutchinson does not claim, as a rule, to get more honey in all. This latter is not correct for all localities.

By our new ways of bee-keeping we try too much to improve upon the instinct of the bees, and we manage many times against the proper instinct. One of their impulses is the building of comb, and if they are allowed to satisfy this impulse they will be stimulated to greater industry and energy, and this will continue for some time after the necessary combs are built. On the other hand, if we work against this impulse, the bees are dissatisfied and many times become discouraged and do not leave home at all. This has been my experience for many years, and generally the bee-keeper has paid too little attention to this point.

To make use of this fact in the management of bees much depends on the location. In my locality swarms will issue or can be made by the middle of March and April, and while we have a moderate honey flow. The main season commences in the middle of May and lasts till end of June. I give a swarm, according to its size, five to ten frames with starters only and the foundation is not only built out long before the season commences, but the swarm too has gathered at least the same weight of honey as a swarm would if hived on empty combs; so the five or ten combs built from starters are clear profit, and there may be some honey too. If the five or ten frames are nearly built out, I give more frames