

rule look for beauty, but he does want to know something about their ability to yield dollars and cents.

Breeders of live stock have some wonderful improvements in their stock by careful breeding. Why should not bee keepers do the same? It is certainly as easy, if not easier. I do not wish to give the impression that I think bee-keepers have not made much advancement along this line, they certainly have, and especially in color. But I do want to mention two very important points that I believe have been neglected, viz.: Prolificness of queens, and comb-building qualities of their progeny.

We cannot very well have a prolific queen without a large hive—the two, as a rule, go together. My experience is that a queen reared and allowed to lay eggs for the space of a week or more in a small hive, or having a small amount of bees, will seldom make a prolific queen, regardless of the stock she comes from.

Hence two things are essential in rearing prolific queens—a strong colony, and a large hive when she is about to begin laying. I also find that a prolific queen is injured by putting her into a hive too small for her capacity, or by confining her through a honey-flow. A prolific queen that has her brood-nest reduced to 4 or 5 combs through a honey season will seldom be the egg-layer that she was, and I am inclined to believe that where large hives are used and care is taken, when the young queens are about to lay, that they have a strong force of bees. In several generations the egg-laying capacity of queens can be increased, and on the other hand if kept in small hives the tendency is to degenerate and lessen the capacity of a prolific strain of queens.

Years ago I used quite a number of 8-frame hives—at one time I had 150 of them—and I also used the 10-frame

hive quite extensively. I noticed all along, year after year, that I got considerably more honey from the 10-frame hives, so I decided to try a 12-frame hive. I transferred six 8-frame colonies into the 12 frame hives, one having a young queen just starting to lay, and quite strong in bees; this was in the early part of the season, and that season all the bees bred unusually heavy, and it was also an unusually good season for honey.

The hive having the young queen filled all 12-frames with brood, leaving scarcely any honey in brood-nest, and kept it full until fall, while the other five had only from 6 to 8 frames full of brood. This is when I first began to notice or believe that egg-laying capacity of a queen was made when she was young.

The next season I put in use about 100 11-frame hives, the frames having no bottom-bar, which for brood have a greater capacity than a 12-frame hive having bottom-bars.

I took particular pains to see what differences, if any, there was in queens from the 8 frame hives, and young queens that started laying in the large hive, and I was convinced that there was a vast difference in most cases, and since then, in rearing queens, if I neglect to give a queen the required amount of bees in time—that is, when she is about to begin laying—I find, as a rule, such queens inferior as to laying eggs.

I wish to speak about comb-building. Nine years ago I bought 10 colonies, and in this lot I found a strain of bees that would not fasten the comb in the sections at the bottom or sides, and as I had lost nearly all my bees the winter before, and was practicing natural swarming, I reared several queens and found their progeny did the same kind of work. I bring out this to show the inherent tendencies in bees.

There are bees that fasten the combs on all four sides of a section—