

the conditions, the colonies could no longer be compared, and this ended the experiment. * *

Before such an application of artificial heat can be generally recommended further work should be done, with the conditions more favorable for accurate comparison, and on a more extensive scale. In this case, apparently just enough heat was given, and in such a way as to increase the rearing of brood without causing an abnormal condition of the colony, a much larger amount of surplus honey being thus secured.—Experiment Station Record.

We have tested this same matter a little, and thought that it gave good results. We did it with hot bricks, by placing the hive in a saw dust packing case, which would keep an even temperature. Have the hive so fixed, that six bricks could be slipped in under it, and the bricks just as hot as they could be without setting the boards on fire. Lay down ten or more thicknesses of paper on a board, put on your hot bricks, and fold the paper over them, slip them under the hive from behind, which is banked round with saw dust to keep the heat from escaping. If you go to the trouble of properly preparing the hive, you can make the bees do double the brooding that they would in the ordinary way, in fact, we have had them so hot, that on frosty nights the bees would cluster out about the entrance.

We found it most valuable in early queen rearing, as we could build them up so strong in this way, that they would start queen cells much earlier; but after we got our early queens raised, we found that we had to beat the hive to get the drones to fly out, and although we could get them to fly out freely, when the weather was cool they would just circle about the hive a short time and return.

Now, these two parts of the experiment worked well, but we had not bricks enough, and could not make heat sufficient to warm up the entire atmosphere for several miles around, so that it would be suitable for successful queen mating. The success depends largely on the condition of the atmosphere.

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How to Find a Queen.

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WHEN settled warm weather comes in the Spring, it is necessary that each colony contain a prolific queen, for if the queen in any colony should be old and failing, that colony could not be brought up to a proper condition to work to the best advantage during the honey harvest. As the queen is mother of all the bees in the hive, she must be able to lay rapidly so as to increase the population of the hive, and if such a one is not in the hive she should be superseded with a better queen.

It also often happens, that the queen which the hive contained during the Fall, dies in early spring, and in that case it is absolutely necessary that the bee-keeper knows it, else that colony will perish, for the bees which have been wintered over, rapidly die off with the work which now devolves upon them, for old age is brought upon the bees sooner or later, according to the labor which they perform.

There is no way of knowing to a certainty what is going on inside, except by opening the hive and inspecting the frames. To know if there is a queen in the hive, look closely at the combs, and if no eggs or small larvae are found in the bottom of the cells, at a time when the bees begin to bring in pollen in the Spring, you can reasonably expect that they are queenless, while if the eggs are few and scattered about in different cells, without regularity, the queen is unprolific.

To be absolutely sure that a colony is queenless, take a frame of comb having eggs and little larva in it, and put it in the centre of the supposed queenless colony, leaving it for three days. If queenless, queen-cells will be formed over some of the little larvae, while if no such cells are started, rest assured that the bees of this hive have something which they are respecting as a queen, and which must be found before a good one can be introduced.

To the accustomed eye of the practical apiarist, prolific queens are easily found, especially if the bees are of the Italian race; but a virgin queen is often hard to find by an expert. The best time to look for a queen is about 10 o'clock, on some bright, warm morning, when the most of the old bees are in the field after pollen and honey.

Open the hive carefully, taking out the frames slowly, and making sure that you do not hit them against the sides of the hive or anything else, so as to make the bees nervous, thereby setting them to running or stinging. When you