

CHAPTER X.

Feeding.

We have seen that in the spring months the bees build up a huge array of producers to secure the benefit of the heavy flow of honey in June. All during the breeding season every drop of nectar is converted into more bees about as fast as it is brought in; then in June and July every cell in the comb is plugged full of honey, on which they will have to subsist until dandelions bloom in spring. But the bee-keeper finds a ready market for the toothsome honey, and therefore robs the hives of the stores, not infrequently leaving too little for the bees to winter on, with the natural result that, unless other provision is made, the colony will starve to death. Again, for some reason the bees may have consumed stores in the winter much more rapidly than was anticipated, so that they must get help in the spring. We have also seen that at the end of fruit-blossom there is often a dearth for a few weeks which would put an end to brood-raising unless the bee-keeper lent his aid. In each instance the necessary assistance is given in the form of sugar syrup, made from the best granulated sugar; any other kind is risky.

The feeding in the fall for winter and spring consumption is the most important. About the beginning of September an estimate should be made of the amount of stores in each hive, this being done by examining each frame and sizing up how many sections of honey it is equal to. Roughly speaking, an ordinary frame will hold eight sections of honey, each weighing about 14 ounces, let us say a pound. To be in safe condition, each hive should contain about 25 pounds of stores. For every pound short of that amount, feed 1 pound of sugar dissolved in water.

Fall feeding is usually done quickly—that is, large quantities of syrup, often as much as 25 pounds, are given at one time. Some men give the full amount needed about the middle of September; others give half then, the other half about the end of October.

The syrup fed in the fall is made rather thick. The thinnest ever used is got by taking equal quantities, by measure, of sugar and hot water, boiling, if possible. It is important to dissolve the sugar thoroughly, so stir well. Some bee-keepers, for fall feeding, use as much as two parts of sugar to one of water, but this strength should not be exceeded.

In the spring months a very much thinner syrup is better, one composed of two parts of hot water and one of sugar. This is given slowly, say from half a pint to a pint a day, according to the needs of the colony.

FEEDERS.

There are four methods of feeding—namely, open-air, above the brood-chamber, in the hive, and below the brood-chamber. Open-air feeding has several limitations. One is apt to feed other bees if there be any within a couple of miles; then there is a temperature limit, for the writer finds bees will not take up syrup from below unless the thermometer is above 50°, so that the same conditions will probably apply to the open air. Feeding below the hive has much to recommend it with suitable dishes, but on the coast regions it is unfortunately impracticable in the spring months, as there are often weeks of cool weather. For fall feeding this system is all right. For giving syrup in spring, preference should be given to a feeder that fits into the brood-chamber, where the syrup will retain the heat and be readily got at by the bees. In the fall it is usually most convenient to feed from above.

There are many devices by which syrup can be given from above the brood-chamber. Perhaps the simplest is the ordinary friction-top can, such as is used as a container for syrup, jam, etc. Prepare it by punching the lid fairly full of small holes with the point