

Feeding for Winter Stores.

—G. A. DEADMAN.

Unfortunately for many bee-keepers feeding bees for winter stores has to be resorted to. In this locality, there is generally little or no honey gathered after the basswood has ceased to yield her sweets. I say generally, because during my fifteen years experience with bees, there was one year when the white clover continued to bloom into September, and as the queen gradually withdrew to the inner frames to deposit her eggs, the outer combs were filled with honey. O that when she ceased laying, there were few cells that were empty. We always weigh our colonies, deducting one and one-half pounds for each frame (size, $12\frac{1}{2} \times 10\frac{1}{2}$) and bees. The weight of the hive is added to this and the balance is the estimated amount of honey. This should be done as early in September as possible, and then if you want to make a sure thing of it, again in October. Unless you have made an allowance for the brood, they will probably hive, and especially where colonies have young queens, you are apt to come short. There are three advantages in feeding early in September. One is the weather is more favorable for the bees properly caring for the stores given them. Another benefit is the queen is encouraged to lay, or rather the bees are encouraged to care for the eggs laid, for I have had many examples of where the queen has continued laying long after the bees would cease to care for the eggs. I suppose she would finally become discouraged and wait, possibly to begin again in October, but oftener the following spring. Feeding early encourages breeding in September that will hatch early in October, the best month, I believe for wintering in the northern latitude. Still another advantage is, the centre combs being occupied with brood, the bees are prevented from storing the feed in them. These combs when emptied of their brood afford a fitting place for the bees to cluster on or in, or it must be remembered that it is much more difficult for a colony of bees to retain the necessary warmth in full frames of stores. We can readily understand this if we remember that the bees go in head first to the cells, the base of which is only between them and those on the opposite side. Now as to the feed. I will not say anything in this article for or against making it by evaporation, as I have had no experience except in a small way in connection with the wing business. The way I have made

it for years, and have had no trouble from candying, souring, or anything else, is as follows: I take the best granulated sugar (I prefer Redpath's. Some makes contain blueing) and for every two pounds of sugar, I use one pound of water. I proceed as follows: I have a large can with a tap to it, —an extractor will do. I take a boiler (size used for washing purposes) and fill it about one-third with spring water. It is then weighed, deducting the weight of the boiler, and when it is nearly to the boiling point, I drop in double the weight of sugar and stir occasionally till it comes to a boil, when it is taken off and poured into the large can, and I proceed again, always keeping plenty ahead which is a decided advantage as I have some always to mix with the hot so as to render both the right temperature for feeding. I think "blood heat" is about right unless the weather is cold and the feeders will cool it much. Of all the feeders, I prefer a box about one and one-half inches high, the size of the top of the hive. By making it with a double side, and a space between for the bees to come up, you have a feeder that, when covered, not only retains the warmth in the hive, but which facilitates rapid feeding. I then cut the desired length I prefer to any other as a float, to enable the bees to have ready access to the feed. Have a smaller can with a top to it, with which to take the feed when ready to the apiary. When placed on a wheelbarrow or other vehicle, you are in a position to do quick work. The allowance for each colony is 30 lbs, less the amount they have. Since making up to 30 lbs for winter stores I have not lost a colony from starvation, and have my mind at ease even though the winter should linger "in the lap of spring" and I should be unable to remove "my pets" from their winter quarters. Care should be used in having colonies snug and warm during and after feeding. If weighed again during the latter part of October I would consider twenty pounds of stores sufficient to carry them over till spring and of course in many cases it would be twice too much, but I would not feel safe with less.

Brussels, Ont.

I ought to tell you that the crop of honey is very small here this year. There is no clover. I have never gotten less from my bees. Fifty colonies gave me about fifteen pounds of honey per colony and the balance gave me nothing at all.

SAM BRABANT.

Beauharnois, Que., Aug. 11, 1894.