

PREPARING THE APIARY FOR WINTER.

Given at the Michigan State Convention.

There is no question in bee-keeping at the present day which can be discussed before bee-keepers generally, with as great a profit as "Preparing the Apiary for Winter." Many of us are satisfied with our methods, simply because we are not educated to something better. We winter bees and bring out the hive with life in it, and are satisfied. If the hairs of the bees would only turn grey with care, they would tell a different story. However, there is another index, and that is to compare our honey crops from year to year with that of our neighbor, herein the grey hairs are manifest. Better preparation for winter, and better wintering would very much increase the net profits to be derived from bee-keeping.

Preparation for winter begins very early in the season. Our aim should be to have strong colonies for winter, with bees in the full vigor of life, that is bees not old and yet fully matured, the queen should also be perfect and in the full vigor of life, and plenty of wholesome stores for winter. The careful and successful bee-keeper must, after he has increased his colonies sufficiently, have more bees than he cares to handle the following spring. It then becomes a question of wintering and selling or destroying the bees. At the present price of bees, in the spring there is no money in selling bees at that season. The hives, the honey they consume, the room they occupy in the winter, and the work connected therewith, to say nothing about percentage of mortality, make it undesirable (unless in exceptional cases) to winter bees for the purpose of sale. There is also another advantage to be derived from destroying a number of colonies each fall, for we are able to select the very best for wintering, and by such selection much can be accomplished towards successful wintering. Other things being equal, colonies hived on starters will not be as strong as those hived on full sheets of foundation or combs. These hives are likely to contain the old queen. In selecting the colonies which are to be wintered, we should look as much as possible for young queens from stocks which have shown desirable characteristics, we want queens of desirable strains and strong colonies.

Sufficient honey should be kept back to give each colony natural stores unless the bee-keeper is in an exceptional locality

and natural stores are injurious. Of this latter I have no experience. If combs of honey have been kept they can readily be given as soon as the brood hatches from the brood chamber, if not I take one of the strongest colonies I intend to destroy, place upon it two upper stories and feed it a syrup prepared from granulated sugar, pure water and a little honey, and feed this as rapidly as possible. No better method can be derived than to feed from beneath the brood chamber.

Bees when not gathering, settle down to a quiet condition during which there is very little wear and tear of the system. This quiescent condition should not be broken if in any way avoidable, by making the bees you intend to destroy do the storing, there is no loss in this way. Next, there will be less waste of stores and vitality all round, even should you have no colonies to destroy by disturbing a few instead of many, it is extremely likely much will be gained. Again, by means of such feeding, winter stores are sealed and in much better condition. The best method of feeding combs of honey, is to prepare the stores in a hive, place this under an old brood chamber and shake the bees down. A few moments and the work is done. I am no advocate of uniting bees at any time unless it be just before the honey flow. After having left the practice of contracting the brood chamber according to the strength of the colony. I return to it and advocate that bees should fairly well fill their hive. I would contract by means of a close division board. I am (for cellar wintering) an advocate of sealed covers with packing above to keep the moisture from condensing on the surface of the quilt, raising the rear of the hive from the bottom board.

R. F. HOLTERMANN.

The Michigan Experimental Apiary.

SUGAR FOR WINTER STORES.

During the past year Mr. R. L. Taylor in his government position, conducted an experiment in connection with sugar for winter stores.

Its object was to get some idea if possible as to the difference in value between sugar syrup and honey for winter stores.

In the fall of 1893 twenty-four colonies were selected, one-half of which were fed sugar syrup for winter stores and the other half to be supplied with honey for the same purpose. Care was taken to select and arrange the colonies so as to have the two sets as nearly as possible of equal strength. This was done by noting the size of the