

I never saw bees in better condition at that season of the year. On the 10th of April they began to bring in fresh pollen, and the prospect for a prosperous season was very encouraging. But the elements seemed unpropitious. The early blooming trees and shrubs did not yield their usual quantity of nectar. During the latter part of May dandelion and apple blossoms were abundant; yet the bees gathered no surplus therefrom, although at that time some colonies became so strong that it became necessary to remove a part of their brood and give them empty combs in place thereof to prevent them from swarming. The scanty flow of nectar in the early bloom of spring proved to be a precursor of the poor season which was to follow. From recollections of past experience I am inclined to believe that by careful observation of the development of events in spring, we may be able in some degree to prognosticate the following season's results in bee-keeping. But as I am not a prophet nor the son of a prophet I will leave this point. White clover blossoms began to appear on the 30th of May, and it bloomed abundantly all through the month of June, but it did not yield much nectar. The yield from linden was also very light. Buckwheat, golden rod, celandine, and a succession of other autumn flowers gave a moderate flow of nectar all through the month of August, and most of September; the 20th of September was a good day for honey gathering; bees worked about as lively on that day as at any time during the summer, and the honey which they gathered at that time was very white, whiter than any other honey that I ever saw, and has a peculiarly pleasant flavor. I looked around considerably to see if I could discover the source from which it was gathered, and I found the bees working very lively upon a species of wild astor, (sometimes called September weed). I could not find any other flowers in blossom at the time, therefore concluded it must be astor honey. After eating of it a few times my appetite hankered for it more than for any other kind of honey. I think that if this honey could be obtained in large quantities entirely free from mixture with other varieties, it would, by common consent, stand at the head of the list, on account of its beautiful appearance and exquisitely fine flavor.

I commenced the season of 1887 with 18 colonies and increased them to 47. I obtained 450 lbs. of comb honey in sections and 600 lbs. of ejected (extracted) honey, an average of about 58 lbs. per colony spring count. And besides this each of those 47 colonies had, I think it is safe to say, an average of 30 lbs. of honey per

colony for winter stores, without any *feeding* back. Not so very bad, after all, for a poor year, but the most of this honey was gathered from autumn flowers. The honey flow in August and September was far greater than it was in June and July.

PREPARING BEES EARLY—LIGHT REPOSITORIES FOR WINTERING.

My bees were all prepared for winter early, and appear to be in excellent condition at this present time, so far as I can judge from outward appearances. I am quite in favor of putting bees into winter quarters early. When they have once formed their cluster for winter, they seldom come out again to fly much for several weeks after, even if the weather is warm and favorable; and when they are done flying the sooner they are protected from exposure the better. Experiments in a small way, with careful observations of results, have inclined me to believe that too much stress is laid on keeping the cellar or repository dark when the bees are therein. To test this matter still further I have seven colonies now in my cellar, some of them so placed that the light from one of the windows shines directly into the entrance of the hives. The cellar is always light enough in the day time to see to work, or to read therein if need be, and is visited at all hours of the day by inmates of the house in the routine of their daily duties. Care being taken not to jar the bees, no further caution is observed in regard to noise, or any necessary movements in the cellar or house above, and yet the bees remain still and quiet as could be desired, not one having shown its head at the entrance this winter, unless the hive was purposely disturbed. The temperature of the cellar has been quite uniform so far this winter at about 42°. The foregoing, taken in connection with similar experiments extending through a number of winters now past—all of which were attended with uniform results so far as the effect of light is concerned—has brought me to the conclusion, that, when bees are in a healthy condition, and ventilation and temperature are right, darkness is not essential to secure that quiescent hibernal state which is so conducive to successful wintering. These experiments were only upon a small scale, with a few colonies at a time. With a large number of colonies piled one upon another the result might be different. Diseased bees will, as a matter of course, become uneasy and restless, and nothing but total darkness will prevent them from leaving the hive.

THE HEDDON HIVE.

When I commenced writing I intended to say something about the Heddon hive, but I see