

lowest 36 deg.

Mice had found their way into both hives and disturbed the bees. Some strips of tin put around prevented their getting in again.

January, highest temp. 41 deg., lowest 39.

February, highest temp. 39 deg., lowest 38.

At the end of February both hives had got perfectly dry and fairly quiet.

March, highest temp. 40 deg., lowest 36.

During March both colonies had got very noisy and showed signs of dysentery, dampness and mould, but

were strong in numbers, considering the amount of disturbance the bees

were subjected to in this experiment. I would consider that they came out

well. Once or twice each week the large doors of the root-house were

thrown wide open to allow the teams to draw the roots out, and this let

in much cold air which came in suddenly upon the hives; also, the

teams drawing over the floor jarred them very much. The amount of

honey consumed on an average for the past four years was fourteen

pounds three ounces each

Experiment No. 4—Wintering in a pit dug in a dry hill-side. The pit

was three feet deep, three feet wide and ten feet long, in such a way

that the ventilators at both ends might not be immediately above the

hives which were in the middle of the pit. The hive rested on two cedar

poles laid along the full length of the pit. The ventilators, which were

three by four inches, were made of boards, three of which reached down

to the bottom of the pit, the fourth to the top of the pit, and the

ventilators rose three feet above the ground. Wooden covers removed

and replaced by chaff cushion. In each hive 2x2 inch strips of wood

were laid on the both sides and under

the back end and between the brood chamber and the bottom board, so as to provide more space for freer ventilation at the bottom of the hive.

The pit was covered with cedar poles laid along to length, the middle ones higher than the others, and these covered with a layer of straw and one foot of earth. A small shaft was so arranged between the hives from which a thermometer could be lowered by means of a string, so that the temperature of the pit could be ascertained. The temperature was taken each week. From November to March the temperature did not go below 38 nor above 39. On the 26th of March the pit was opened, both colonies came out good and strong, but the combs were badly moulded. Average weight consumed during the past four years was eleven pounds four and one-quarter ounces. Great care should be taken to guard against water reaching the pit.

Experiment No. 5—Wintering in a house apiary. The house apiary faces the south, the walls are double boarded and with an air space of four inches. The floor which is about one foot from the ground is also double boarded, and there is no draft under it. The hives were removed one foot from the wall and placed on a double thickness of sacks laid on the floor. The wooden covers were removed and replaced by chaff cushions. In addition to this the hives were covered above and all around with a double thickness of sacking, also one foot of cut straw a foot below and all around. A small shaft  $1\frac{1}{2}$  in. square extended from the opening of each hive to the outside of the building. Two inch strips of wood were placed at both sides and under the back, between the bottom board and brood chamber so as to give more space to the hive in case a quantity of dead bees should