cent—we find the larvae consuming the latter get more than one-third less protein in the same quantity of food than the former, resulting in feeble resistance to disease germs in the larval stage and weakness, predisposition to disease, susceptibility to cold and premature wearing-out of the perfect insect. Having been the first some years ago who suffered severe losses from the mysterious mortality of bees, which has made its appearance in many other localities since, I have naturally taken great interest in the matter right along. The view I first expressed that the cause was one of food was much opposed and ridiculed for some time. I have found no reason so far to alter it. When all the facts connected in reference to this trouble were put before Dr. Cherry he came to the conclusion that it was a question of quality of food.

Dr. Cherry's address at our last annual meeting explained the scientific reasons for this conclusion, and gave me fresh stimulus to try and find out how far this is borne out by facts. I made enquiries into all the cases of disease that came to my knowledge, and in every case where the mortality was not actual starvation of the adult bees or virulent paralysis, it appeared to be the result of defective quality of food. As instances Mr. Bennett lost over 70 per cent of his colonies in one apiary last spring, while in another apiary of his six miles distant they came through in a normal way. Mr. Jackel suffered heavily with bees he shifted to north of Bendigo, while those he left behind were all right. I myself lost a few and had all the colonies very weak in the home apiary. While at the out apiary only six miles away they were strong, and there were no losses, although they were the same bees and taken from the same apiary at random. Now in the case of Mr. Bennett's losses and in my home apiary brood was raised and bees wintered on Flatweed honey and pollen, whereas in Mr. Bennett's apiary and my own out apiary there was no flatweed and no losses. Reference to report of analyst as published in "Bee Bulletin" will show that flatweed contained the smallest percentage of protein. In Mr. Jackel's case no pollen was sent in by him for analysis; there was a flow of honey from smooth-leaved iron bark during June, July and August. In this case the trouble seems due to honey. In other cases sugar feeding apparently caused the trouble.. I think Mr. Davey first pronounced sugar feeding a failure some years ago. Mr. Wills, after experimenting on an extensive scale, endorsed that view, so did many others. Mr. Davey even had an idea that feeding sugar syrup produced paralysis; if he means in the way that dry grass produces bush fires I agree with him. Others think that there is some injurious ingredient in the sugar. During last season I have experimented with sugar syrup, and the two colonies fed turned out to be the worst, or rather weakest, colonies in spring. The chemist for agriculture informs me, however, that the better samples of commercial sugar are almost pure hydrocarbonates, and entirely free from injurious ingredients. Assuming that the absence in sugar of that small percentage of protein which honey contains is accountable for its unsuitability for stimulative feeding, there still remains the fact that under certain conditions, as experienced by Mr. Wills and myself, feeding honey for brood rearing has proved equally unsatisfactory. We are therefore forced to look for the cause in another direction. When flowers secrete honey there is usually a production of pollen at the same time, with, however, some exceptions. On the other hand there sometimes is a great amount of pollen coming in, but no honey. If such pollen is of the proper composition, such as is produced under normal conditions, then stimulative feeding for brood rearing will prove successful, and no bad after-effect will follow.

(To be Continued)