

introduction into almost every bee establishment has prevented the bee from becoming thoroughly acclimatised. We are as yet unable to say what would be the effect of Australian climate, the extraordinary food supply, and other conditions of life upon a strain left entirely uncrossed. This subject appears to me to claim attention.

By breeding from a vigorous strain, which would also be good honey gatherers, the influence of climatic and other conditions could be tested. It is not a matter of great difficulty if systematically taken in hand, if sufficient patience is exercised. Still, it may take years of constant attention to achieve any definite result, since the manifold influences, whether produced externally or through inherited tendencies, are as yet not thoroughly understood.

In Darwin's great work, "The Variation of Plants and Animals under Domestication," vol. ii, p. 188, the following is found: "As the time to make the change has not often been recorded, it may be worth mentioning that it took Mr. Wickling thirteen years to put a clean white head on an almond tumbler's body. 'A triumph,' says another fancier, 'of which we must be justly proud.' This achievement in the time of thirteen years of constant special selection, that was under the most perfect command, for the suppression of a few off-coloured feathers in a strain already strongly inclined to vary in the direction of a white head is called a triumph, and I agree justly so, when I consider how slowly nature works as a rule. But the greatest triumph is in the proof that it is possible with perseverance to achieve a certain object, provided that reasonable indications exist that such an object is attainable. It can scarcely be expected that with bees a similar triumph will be achieved within such a limited period; but if selection is directed to a single quality, a great deal probably may be accomplished in a few years.

#### THE NEED FOR IMPROVING THE STAMINA.

As far as I am acquainted with general opinion of bees in Australia, they appear to lack stamina, and the first thing is to improve them in direction of increasing their vigor. Any further selection ought to be entirely guided by utility, and fancy views dropped for a while. In attending to this selection the wedding out of all drones of desirable strains is, in my opinion, fully as important as the superseding of an unstable queen. The more carefully this is attended to, the more likelihood is of good results being obtained, and the quicker the effects will become perceptible.

I am further of opinion that probably certain strains will adapt themselves better than others to the surrounding of any particular locality, and when this is noticed such strains should form the stock to breed from. There is little to be feared from close inbreeding regarding bees, because the liberal production of drones will guard against this. If only the undesirable drones are, by destruction, precluded from the chance of attaining coition, sexual selection will assist the breeder. But an indomitable prescience is required to achieve the aim in view, which is more needed in pursuit of selection among bees, since individual selection can only be practised to a limited extent, namely, with the queens. The Australian Agriculturist.

#### The Honey Exhibit at the Toronto Industrial Exhibition.

Never before in the recollection of exhibitors has there been as fine an exhibit of honey at the Toronto Industrial Exhibition, but unfortunately for the exhibitors and for the public generally, the place this year occupied is under the east end of the Grand stand, a position in a remote corner and away from other exhibits, people expecting to find under this building nothing but lunch counters and dining halls. Again, moving the building each year gives those wishing to see the honey building and intending purchasers no end of trouble. What bee-keepers and the bee-keeping industry requires is a separate building permanently located and the position of that building in a location where it can be readily reached. We have said this building is required by the bee-keeping industry because it must not be forgotten that those exhibiting at Toronto are benefiting bee-keepers generally because they are drawing attention to honey and many purchase honey in city stores, through having seen and perhaps tasted it at the exhibition. The large exhibits are all neatly and tastily put up, some of course going to greater expense than others in providing the finishing touches, but all of them a credit to bee-keepers. Mr. R. H. Smith, St. Thomas, shows a pretty full line and has the sympathy of all, because his wife Mrs. Smith, owing to ill health this year unable to be with him at Toronto. Chas. Brown, Drumquin, had a fine exhibit. Messrs. Saunders and Piere have done good work in displaying a product of excellent quality. H. N. Hughes and Bro. Barrie show some very fine honey and owing to lack of room are unable to do themselves