

much below the achievement of the parent colony. Now, very possibly, one of the hundred daughters will be found more efficient in the matter of producing good honey gatherers than her mother. If we raise another hundred queens from this daughter and place them at the heads of our colonies, we shall find precisely the same wide range of variation in the yields of honey, but at the same time we may obtain a slightly better average for the whole yard. Repeating this operation of selecting the very best daughter each time, and raising from her all the queens needed, we shall slowly, but surely, raise the average yield per hive. We have nothing to fear from in-breeding so long as we are selecting for efficiency and vigor. On the other hand, it will be absolutely dangerous for the man who is practising line-breeding to introduce fresh blood.

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In his interesting notes on bee-keeping in British Columbia, Mr. Wm. L. Couper asks us why we believe the elimination of the swarming instinct in bees would mean probable destruction to the honey-storing instinct. We don't think we said quite that. We, however, believe that bound up with the swarming instinct are others which may include the honey-storing instinct. We believe that the instinct which compels a very large portion of the colony to abandon its hive in the height of its prosperity to find a new home is an all-important characteristic in the "make-up" of the bee. The instinct, whilst it may be modified within certain limits cannot, we assert, be eliminated. If, however, Mr. Couper can produce a single colony in which the tendency to swarm is suppressed, it will be a comparatively easy matter to perpetuate such a race.

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We should be glad to hear from our readers on the point raised by Mr. Couper regarding honey-dew. Our own personal experience is that the conditions

mentioned greatly favor the gathering of honey-dew by bees. The liquid excreted by the aphids quickly dries in the hot sun into a varnish, upon which the bees do not work. During the cool of the night, however, moisture is precipitated upon the leaves, forming a honey-dew solution which in the morning attracts immense numbers of bees. On warm, misty mornings, such as Mr. Couper refers to, we have climbed trees and watched the bees upon the moistened leaves.

### TREATING EUROPEAN FOUL BROOD IN THE FALL

Indexed

By Morley Pettit

In reply to one of our correspondents, who has European foul brood in his backyard, the Provincial Apiarist, Mr. Morley Pettit, writes as follows:

Owing to the nature of European foul brood, which is prevalent in your correspondent's neighborhood, there is nothing that can be done for him this fall, except to advise him to requeen his colonies with some good stock of Italian queens. In fact this is about all that can be, and that is necessary to be done for this trouble.

When we detect the disease in an apiary about the beginning of the swarming time, so that the "shaking" treatment can be applied without serious loss to the apiary, we advise that treatment; but if the disease is detected in the fall, we certainly do not advise anything but Italianizing, as that alone will generally cure the trouble. It will at least hold it in check until the next swarming season. There is absolutely no use trying to cure black bees of this disease. The only sure method is the introducing of Italians.

Guelph, Ont.

October, 1911

### BE-KEEPING IN BRITISH COLUMBIA

Indexed

By Wm. L. Couper

I have read with much interest Mr. Couper's remarks on bee-keeping in British Columbia. It was very interesting to learn that he met Mr. Chilliwak that he met Mr. Couper and the conditions here were very good. Last spring was, I fancy, an unfortunate one for bees, as the willow and fruit bloom were very late, and a day on which they were very cold and wet. In the apiary, which was in the middle of June, though the weather was very cold, after a ten days' trip from the north, the bees were very much built up more quickly than I had believed possible. White clover, which was in full bloom in the middle of June, though the weather was very cold, yielded any honey, to speak of, in the middle of June, though the weather was very cold, and the conditions here were very good. Last spring was, I fancy, an unfortunate one for bees, as the willow and fruit bloom were very late, and a day on which they were very cold and wet. In the apiary, which was in the middle of June, though the weather was very cold, after a ten days' trip from the north, the bees were very much built up more quickly than I had believed possible. White clover, which was in full bloom in the middle of June, though the weather was very cold, yielded any honey, to speak of, in the middle of June, though the weather was very cold, and the conditions here were very good. Last spring was, I fancy, an unfortunate one for bees, as the willow and fruit bloom were very late, and a day on which they were very cold and wet. In the apiary, which was in the middle of June, though the weather was very cold, after a ten days' trip from the north, the bees were very much built up more quickly than I had believed possible. White clover, which was in full bloom in the middle of June, though the weather was very cold, yielded any honey, to speak of, in the middle of June, though the weather was very cold, and the conditions here were very good.