

## APIARY.



## OFFICERS OF THE ONTARIO BEE-KEEPERS ASSOCIATION.

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## BEE FARMING.

Evidence of the Hon. Louis Wallbridge, of Belleville, Before the Ontario Agricultural Commission.

Continued from last week.

9. Whence do you secure your supply of queens, and what queens do you prefer for the improvement of the stocks?

Italians, thus far. Originally, we imported Italians from Quinby, New York, Langstroth, Ohio, Dudunt, Michigan; but now we have as fine bees as can be imported, raised here. W. C. Wells, of Phillipston P. O., raises as fine as I have ever seen. He will shortly raise Cyprus queens from Jones' importations from Cyprus.

10. What quantity of honey does a stock of bees average in one season?

Last year, 1879, a very good year, each hive, taking that as the basis of calculation, averaged 98 pounds, extracted. This is more than a general average—perhaps 75 pounds would be a fair average; 40 pounds would be a fair average of box-honey. I have taken 101 pounds from one hive, and a swarm, box honey. This is extraordinary.

11. Is the average as good in quantity and quality in your district as in other countries or in other parts of this Province?

Fully up to the best. We think the white clover and bass-wood the best. The thistle is excellent, but not so abundant as to quantity. I find the bee-keepers overestimate. The occupation is of an exciting character, which may account for it. My opinion is that Ontario is one of the best, if not the best country for bee-keeping on this continent. There are in all the accounts you see published a great deal of brag, for which allowance must be made, especially in the United States.

12. Do you adopt any method of supplying the bees with comb?

W. C. Wells manufactures excellent foundation both for the Brown chamber and honey boxes or supers. There are other manufacturers of foundations in this county as well as Mr. Wells, Lewis Searles, Foxboro' P. O., is one of them. Every intelligent bee-keeper uses foundation either for the whole frame or as starters.

13. What kind of hive do you consider best?

The Langstroth. I prefer a modification—a little deeper and shorter. The contents ought to be about 2,000 inches cubic.

14. With pure-bred queens, do you find any difficulty in keeping up the purity of your stocks?

Not much. It requires attention, but can easily be done. The drones of hybrids are pure.

15. How do you feed your bees, and in what way are they protected in winter?

Only bad bee-keepers feed bees, or in a poor bee country. A little food in spring to stimulate is of doubtful good—the quieter the better in the spring.

We winter in winter depositories, temperature at 41°—45.

16. What is your treatment of the bees in wet seasons?

Our climate makes no demand for extreme drouth or extreme wet. These are great disadvantages under which we do not labor.

17. What class of honey commands the best sale in the foreign market?

Clover, bass-wood and thistle. I have been surprised at the preference in England for buckwheat.

18. How is the foreign trade in honey carried on?

Only in its infancy; generally individual consignments to persons with whom connections have been formed.

19. Is adulteration practised to any extent, to the prejudice of the honest dealer?

Not at all in Canada.

20. What insects are destructive or injurious to bees?

The moth; but with a good hive, the Italians protect themselves. The writer has not seen one this year.

21. What methods are best adapted to counteract their ravages?

Good hives, strong colonies, and attentive bee-keepers. The moth is a just punishment for the inattentive sloven.

22. To what diseases are bees subject; and are stocks often lost from such causes?

Foul brood is the only disease; never heard of it but once in this part of Canada. The best cure is to burn the whole thing up, and begin again. This is the cheapest—the labour of curing foul brood costs more than the value of the bees.

## THE CYPRIAN BEE.

REV. L. L. LANGSTROTH IN "GLEANINGS."

At last we have ample means for judging of the temper of this bee, as shown in their native island, where no questions can be raised as to their absolute freedom from mixture with other varieties. In a private letter to me, Prof. Cook, of Lansing, says of Mr. Frank Benton, who has done this good for us, "He is scientific in his methods and habits, very earnest and enthusiastic, and honest to the core." Writing out of his large experience with them, in a season unfavorable for honey-gathering that, if they possessed any unmanageable irritability it could not fail to show itself, Mr. Benton gives them the palm, even over Italian bees, for easy control in all necessary manipulation.

Two years ago Mr. Muth, of Cincinnati, after weighing all that our German friends had to say about them, agreed with me in doubting whether their decided merits in most respects were not more than counterbalanced by excessive irritability. Mr. Benton's explanation of the simple methods by which they may be kept peaceable has dissipated these apprehensions, and I am strongly inclined to think that we have been fortunate enough to secure a strain of bees which unites the best qualities of both the blacks and Italians. After a large experience for many years with the last-named races, I came to the following conclusions:—

(1) *Where late forage is scarce, the Italians stop breeding much earlier than the blacks.*

In Oxford, where, after the second crop of red clover fails, bees usually gather less honey than they consume, the Italians, unless artificially stimulated, raise so little brood that they go into winter-quarters with too few young bees. Under the same conditions, the blacks breed quite late in the fall, rarely ceasing until after severe frosts, and often persisting in it when they have not honey enough to last them

for more than a few weeks. Now, the evidence is quite conclusive that the Cyprians, like the blacks, are strongly given to late breeding.

*The Italians, unless stimulated by judicious feeding, do not resume breeding as early as the blacks.*

In Greenfield, Mass. (see p. 339, 3d ed. of my work on the hive and honey-bee), where I had only blacks, the Dec. of 1846 was extremely cold. January, 1847, was the coldest January on record, in that latitude, for more than fifty years. Once the temperature was 30° below zero, F., and there were two days when the wind blew a strong gale, the mercury getting but once as high as 6° below zero. From the 7th to the 14th the mercury was, one-half of the time, below zero, and only once as high as 10° above—the wind blowing an almost continuous gale. Early in the forenoon of the 14th, the mercury was 10½° below zero. Later in the day it moderated enough for me to examine three strong stocks, in the central combs of all of which I found eggs and uncapped brood, and in one of the stocks a little capped brood. On the 30th of that month the central comb of one of these colonies was found to be almost full of sealed brood, mature. My experience with black bees led me to expect breeding to begin in good stocks about the 1st of Jan., and sometimes a little earlier.

In my Italian apiary at Oxford, where the mean of the winter is very little lower than the mean of March in Greenfield, I seldom failed to get an opportunity of overlooking my stocks some time in February, and rarely found much brood in that month, even in the strongest; while in most of the laying had not even begun. The present winter here, though unusually cold, does not compare for severity with that of 1847 in Greenfield, and there have been three thaws causing the resurvation of navigation on the Ohio River. Two of my neighbors, the Messrs. McCord, examined, on 11th May, a large number of stocks, some of which were very strong, and in only two was brood in any stage noticed. While it is very true that a small colony of Italians, when breeding fairly begins in the spring, will, as a rule, rapidly outstrip a black one of equal strength, is it not equally true that what is called "spring dwindling" among Italians may in many cases be attributed to the above-mentioned causes? In localities where the main honey harvest is over or before the middle of July, early breeding is essential to success, and with Italian bees, artificial stimulus must ordinarily be used to induce it. Some of the readers of *Gleanings* may remember my experiments in this line two years ago, interrupted by the return of my old malady.

Thus far, all the experiments with Cyprians, which have come to my knowledge, show that in their propensity for both late and early breeding, they resemble, even if they do not surpass, the blacks. In the *American Bee Journal*, Feb. 2, 1881, Melville Hays, of Wilmington, Ohio, writes, under date of Jan. 3d, of his Palestine bees: "To-day I opened the hives and found brood in all stages from the egg up, in six frames." I presume that the Holy-Land bees will be found to resemble very closely the Cyprians. In this connection, I will mention the curious fact, that, some years before the Egyptian bees were introduced into Europe, many of the workers of one of my Italian queens had the peculiar crescent-like markings of the Cyprian, Palestine, and Egyptian bees. After importing the Egyptian bees, I could easily agree with Vogel, that the Italian is a cross between this bee and the black. Mr. Woodbury's hard

experience with the Egyptian bee in England may easily be accounted for by supposing him to have attempted to handle them just as he did the Italians.

*The Italians are much more inclined to build drone comb than the blacks.*

When forage is abundant, an empty frame was placed between two full ones, my experience with the blacks led me to expect them to fill it with worker comb; and if their queen was one of the current year, I could count upon this with almost absolutely certainty; while, under the same conditions with Italians, drone comb was the rule and worker the rare exception. The Italians, instead of filling the empty frame, often occupy the vacant space by bulging out the other combs; and if the honey in them was capped over, they would sometimes build another tier of cells right upon the cappings of the old combs. Time would fail me to describe my various experiences in trying, when forage was abundant, to induce Italian stock to build worker comb, and it was only by a free use of the extractor that, toward the close of my career as an active apiarian, I was able to secure—what cost me no trouble with the blacks—a sufficient supply of worker comb. By the use of comb foundation we are now much better able to remedy this defect in Italians.

Having now mentioned some of the points in which the blacks are manifestly superior to the Italians, and reserving others for future discussion, it must be evident that the Italians must have some extraordinary advantages, to give them the preference among our leading bee-keepers. These I propose also to notice in another article.

From all that I can learn of them, the Cyprians seem to have in high perfection some of the very best qualities of the blacks and Italians; and unless Mr. Benton can find something still better for us in Asia, we may well congratulate ourselves on its introduction in undoubted purity into this country. All honor to Mr. D. A. Jones, of Beeton, Canada, whose extraordinary energy and experience in the management of bees, and large expenditures, have done so much, and promise to do so much more, to secure for Europe and America the best race of bees, or the best cross between different races, that the world can give us! Without Mr. Jones, Mr. Benton might have lingered in vain for such golden opportunities; and we should be still groping in the dark, as we have been for so many years, talk-and planning "how to do it," but still ever so much further off than we now are for the desired goal.

The Holy-Land bees procured by Mr. Jones' personal visit to Palestine will probably be found to have the same good traits with the Cyprians, and to be much nearer allied to them in size and disposition than the Egyptian (*Apis fasciata*). Mr. Jones himself gives them the preference, and it may be that our most valued bees shall come to us from that promised land, flowing in milk and honey! As the Italians are doubtless a cross, there is not much to be expected by mixing their blood with the new-comers.

## TO PUBLIC SPEAKERS.

Public speakers and singers who would possess a clear voice, freedom from hoarseness and sore throat should use Hagyard's Pectoral balsam, a safe, pleasant and certain healer for the throat and lungs; it speedily breaks up a cold and cures all pulmonary complaints, that so often lead to incurable consumption.

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