

who sent reports, one would be well within the limit in stating that there are 100,000 colonies of bees in Ontario this spring. The average number of colonies owned by those who reported is 34.3 each, spring count. Bees have wintered very well. The 9.3 per cent. loss given by those who have reported is quite light, as some of the most extensive specialists count on an annual 10 per cent. loss in wintering.

Much of the winter loss is not definitely understood, owing to the limitations of our actual knowledge of bee-nature. The reasons given in the report are loss of queens, late weak swarms, starvation, dysentery, foul brood, poor ventilation of the hive or cellar, dampness in hive or cellar, honey dew, robbing, mice, and that indefinite term "spring dwindling." Other cases are covered by the term "winter killed," which is quite true even though of uncertain definition. The whole wintering problem is one of the most frequently stated "difficulties" in the reports.

The condition of bees is very similar all over Ontario. The very warm weather early in March set up breeding and made the colonies strong early in the spring, but very short of stores. This shortage of supplies and the unfavorable weather later cut down breeding, much brood and even whole colonies starved, but not until in some cases a little epidemic of swarming sent many premature swarms out to suffer or starve in their new hive. Those who gave their bees one-quarter as much attention as they would give the other live stock, fed them sugar syrup, and will probably reap dollars for dimes in the clover honey season. In many cases it will take bees at least two weeks into the clover flow to get ready for work.

The proportionate number wintered in cellars and outdoors varies greatly with the latitude. In all the southern and western counties outdoor wintering predominates, while in the north and east cellars are more popular. Some new repositories built above ground are used,

but these do not, as a rule give as good satisfaction as the underground cellar well darkened and ventilated. Bees were removed from cellars earlier than usual this year, because of the excessive heat in March made it impossible to keep them comfortably cool in the cellars. This matter of maintaining a proper temperature is one of the chief difficulties in cellar wintering. A few warm days in March make it necessary to set the bees out, then they suffer in their unprotected hives through the weeks of bad weather afterward. The only way to winter bees in the average cellar is to pack and shelter them warmly after setting them out. This the vast majority of bee-keepers will not do, so we recommend packing them warmly on their summer stands in October, for all except the more northerly counties.

Without knowing what extenuating circumstances there may have been in some cases, we would judge that many who wintered outdoors unpacked their hives too early. There seems no reason why bees comfortably packed on their stands should be stripped and exposed to the inclement weather of April and the first half of May. Packing cases should be made so that a super could be put in the hive if necessary before it is unpacked. In fact many leave the hives in the wintering cases all summer. If the cases are individual this method has some advantages, but where six or eight are in a case it is decidedly objectionable, both from the standpoint of convenience of handling, and the distribution of disease which may be in the yard. Bee-keeping in some of the best counties in Ontario is greatly hampered by men clinging to these antiquated hives, when a single honey crop would more than pay for convenient modern appliances.

Very little disease was reported. Men are not usually proud of its presence in their apiaries, although the disgrace is not in finding it present, but only in failing to get rid of it. The Canadian De-

partment of Agriculture 000 this year in a continuing fight against Foul Brood. district inspectors in their reports show that there is much to be done for them to do. All districts are being visited first, and then wishing to clear up doubt as to the existence of this disease in the district should send word to the nearest Department of Agriculture at an early date. It is natural that those who have requested the services of the department be more apt to get their questions answered than those who do not.

The report on the matter of the far too great a percentage of man bees kept throughout the province. While these bees have many qualities they are no better than in any respect except the whiteness of capping on the bees. They are a sure prey to Foul Brood which has been particularly troublesome over many parts of Ontario. It is in fact this dread disease so well known to Italian bees. On this account for other reasons, we would recommend that all apiaries in Ontario be cleaned up as soon as possible.

All kinds of hives are being "barn" down through the twelve-frame, ten-frame, and the Langstroth, the Jones, the Lup, Quinby and home-made. A man was brave enough to use the hives, and the number of bees was "Goodness knows" but he didn't. After all, the kind of hive to use is the kind that will succeed with, but when one is seeking uniformity of results it seems nothing to gain and nothing to lose in adopting a hive which is superior to everything under the sun.

The chief difficulties which have been summed up in the problems of apiculture—