

EXAMINING AN APIARY FOR DISEASE.

The diseases which cause the most damage in Ontario attack the developing brood, causing much of it to die in the comb, and so reducing it that the colony soon dwindles from lack of young bees to replace the old.

When examining an apiary for disease the prime consideration is to avoid robbing. The best time is during a good honey flow as early as possible in the season.

It is necessary to have a good smoker, a hive tool for taking out combs, and a supply of wooden toothpicks for testing the brood.

In opening the hive just enough smoke should be used to keep the bees in subjection. Remove each comb in turn from the brood-chamber and examine the brood. It is best to sit on a box close to the hive with your back to the sun, and hold the comb so that it will shine into the cells, and throw a strong light directly on the lower sides and bottoms of the cells. If there is no disease, the empty cells will be bright and clean, and the uncapped larvae will be plump in form and of a pearly white color. At first a number of cells of capped brood should be opened with the pick, until you are quite familiar with the outward appearance of healthy capped brood. Cappings which to any but the best-trained eye appear quite healthy often cover dead larvae. When diseased cells are present they are quite frequently found around the lower edge of the comb. If any of the brood cappings appear darker than the rest, or are flat, sunken, or perforated, they should be opened to see whether the brood they cover is dead. Healthy brood is sometimes found under flat, or perforated cappings; but there is a difference in appearance which experience soon teaches one to detect. Brood sometimes develops without ever being fully capped. This is no indication of disease. When each hive is finished the pick used there should be left in the hive, and if any honey is daubed on hands or tools they must be washed thoroughly before opening the next hive.

There are three brood diseases prevalent in the apiaries of Ontario; American Foul Brood, European Foul Brood, and Starved or Pickled Brood. The first two are known to be infectious; the last is not so considered, although its cause is not well understood.

DISTRIBUTION.

American Foul Brood is pretty evenly distributed over that portion of Ontario lying south and west of the Trent Valley. European Foul Brood is spreading rapidly from three main centres of infection, so that the following counties are now diseased: Carleton, Russell, Renfrew, Northumberland, Hastings, Prince Edward and Welland. A slight outbreak was reported in 1911 in York.

These two diseases are costing the Province of Ontario hundreds of thousands of dollars annually, not only in loss of bees and honey and of