

some drops of chloroform upon it may be inserted into the nozzle of the smoker and the fumes of the drug driven in at the entrance of the hive or under the quilt the same as smoke. When the bees are in such a condition that they will not fly from the combs when the hive is severely jarred, the process is complete and no more chloroform need be given. The results will be given to each experimenter at the close of the season and you are invited to assist in the work and fill out list of questions, sending them to R. F. Holtermann, Brantford, Ont., by September 1st,

Kindly let me know at once if you will undertake the experiment.

Yours very truly,

E. A. RENNIE.

R. F. HOLTERMANN.

These questions are appended and are to be answered "before" and "after swarming"

Number of colonies.

Date of treatment.

Did honey flow continue after treatment.

Did colony swarm after treatment.

If so what date.

Did you give the colony more room after or immediately before treatment.

Did the bees appear to work with their usual vigor.

Did your other colonies swarm after these were treated.

Do you consider this method a success.

From the British Bee Journal

When do Most Bees Die, and What Causes Their Death?

Concluded from page 136.

HAVING stated the time when bees usually die and mentioned the causes of death, it only remains for me to say when and from what causes whole colonies perish in the majority of cases.

Any one with a slight knowledge of the nature of bees and very little practical experience, knows that in the greatest number of cases the loss of colonies is due to severe cold in winter; and Dr. Krasicki, speaking of the decline of bee-keeping on the Niemen, ascribes it quite correctly to especially severe winters, but, contrary to all reason and experience, he attributes the deplorable losses in Germany after the severe winter of three years ago to the great care which had been taken to keep the colonies warm in winter—which I recommend to be done—so that in the end the blame for the losses incurred would really fall upon me. To ascribe to excessive heat what evidently has been caused by excessive and continuous cold, is however, just

as reasonable as to assert that a man found benumbed in the street on an extremely cold winter's night had died from sunstroke. On the warmest days in autumn and the mildest days in winter bees kept in hives made of thick logs of wood, or in very warm wooden hives, continue in excellent health. When severe cold sets in afterwards, penetrating every space, both human beings and animals are getting chilled, bees alone are supposed by Dr. Krasicki to be suffering from excess of heat and to be in a state of perspiration. Let him comprehend it who can.

Baron von Ehrenfels, who had an intimate knowledge of bees, was in the habit of placing his straw hives in rows between boards in winter and to fill up the empty spaces between with some warm material. I consider such precaution quite superfluous, but by no means injurious to the bees, for the less the heat escapes unnecessarily, the more economically and healthily will bees winter, and the longer will they be able to delay from flying out. It is of course necessary that there should be a sufficient supply of fresh air, for as a fire in a stove becomes extinguished when oxygen is excluded, all generation of heat and life itself in the bee-hive ceases when all the oxygen has been consumed. Ay, there's the rub! The want of air fit for breathing, and perhaps also of water, is the cause of bees becoming restless, which ignorant and superficially informed people attribute to excessive heat. But even should the irrepressible impulse of bees to cleanse themselves be the cause of the restlessness in a colony, which is quite imaginable, it will in any case be advantageous to keep bees sufficiently warm and active to enable them to get to the entrance and cleanse themselves there, instead of being obliged to do so half chilled in the cluster, which would almost certainly cause the immediate ruin of the colony. We know very well that as long as bees are able to get at their store of honey they can stand severe cold; and if examples are mentioned of bees having wintered well in high northern latitudes, this proves nothing against the expediency of providing as much protection against the cold as possible.

Some Italians who accompanied the Austrian Polar expedition survived the fearful winter of those regions without any apparent injury to their health; but no sensible man can possibly doubt that they would have felt much more comfortable in their own native country where the climate is mild. For bees to be obliged to draw closely together, to tremble with cold, and to pipe in a higher key, has always to be considered an evil which a sensible and careful bee-keeper will endeavor to guard against as much