

WINTERING BEES

Methods of a Bee-keeper of Twenty-eight Years' Experience.

AN ADDRESS DELIVERED BY J. F. DUNN, RIDGEWAY, ONT., AT THE CONVENTION OF THE ONTARIO BEE-KEEPERS' ASSOCIATION.

I pack my bees before feeding them for winter. Any that do not need feeding are finished right up, and filled clear to the cover of the packing case. Those that need feeding are packed up to the level of the top of the honey-board. I pack them early and feed them late. This year I finished feeding October 18th. On November 10th bees were gathering a little honey and great loads of pollen. Our season is longer than in higher altitudes or localities further north.

The feed is so thick and the hives so warm that the bees have very little work, and it is soon capped over. Bees are in very much better shape to stand the rigors of our northern winters, as their vitality is not weakened with the strain to which they are subjected when fed thinner stores in cold hives.

Before placing the hives in packing cases, I run a piece of an old buggy-spring in the entrance and pry the front of the hive off the bottom-board and shove in between the bottom edge of the hive and the bottom-board the summer ventilation wedges, three-quarters of an inch and one-eighth space under front of bottom-bars of the brood-frame, insuring plenty of air, and preventing clogging up entrance with dead bees. I then place a strip one-quarter of an inch thick and two inches wide, in which a notch has been cut three-eighths of an inch high, and as wide as I can get it in a ten-frame hive. I regard this wide entrance as a very great factor in successful wintering. After placing the hives in the outer packing-case, I pour in planer shavings, packing them tightly with the edge of

a board, until even with the tops of the honey-boards.

I try to get my supers off early enough so the bees can seal all honey-boards tightly on hives that do not need feeding.

After the packing is in position at side I lay a piece of building paper, the thin, black-glazed, waterproof sort, that costs \$1.40 per roll of 300 square feet, over the top of each hive, and tuck in down the outsides of the hives and about three inches below the honey-board, pressing the packing tightly against the turned-down edges of this waterproof paper. On top of this I lay old newspapers and magazines, or any other sort of papers that are handy, to the depth of four inches up, according to the supply at hand. After each layer of old magazines, place a large paper over all to make as many dead-air spaces as possible, tucking a large piece of paper down over ends, of each layer, and drawing the packing tightly against ends of paper packing. I then pour in planer shavings to fill the case. The planer shavings must be very dry. White pine shavings I prefer to all others. Forest leaves suit me very well, but as the object is to have as many dead-air spaces as possible, shavings are preferred. When properly pressed down each shaving lying on another makes a dead-air space or nearly so.

Wheat and oat chaff are next in line of preferment. Sawdust and clover shaff are taboo. Two years' experience with clover chaff, in an out-apiary, alongside of other packing, settled this matter with me. For the past six years we have packed nearly all our bees as described.

I have been engaged in bee-keeping twenty-eight years, about half of that time as a specialist. Experiments extending over several years have convinced me that absorbents over the cluster are not needed. All animals, even to the highest man, need water to sustain life. We are located on the

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