

should be plenty of stores. I know that plenty of stores and a normal condition of the colony are essential always in wintering.

Packing should never be so deep that the colony cannot get the benefit of the outside warmth when the day is pleasant and sunny, for if they become weak and not able to heat the hive it becomes to them a sort of refrigerator. If they be packed very deep, there should be ample ventilation, especially above, to let out dampness. If there are bees enough to warm the hive and cause evaporation sufficient to keep the hive and combs dry, it will matter but little how deep they are packed. Their fight is against cold, and the accumulation of moisture making the bees damp, makes the cold so much harder to bear. I can stand 10 to 20 degrees more cold or heat in Colorado than I can in Iowa, simply because dryer.

It is important, then, that the bees be kept dry, and the weaker the colony the more external heat required. Make the protection in such way as to obtain the most heat, and retain the least moisture. I have thought for several years, that one cause of diarrhoea was the bees taking up the surplus moisture that drips on or about them, and not being able to fly and dispose of it.

Exhibit of Ontario Honey at the Imperial Institute, London, England.

Toronto, May 27, '97.

DEAR SIR.—I enclose report of honey received from Mr. Watson. After reading please return here for filing. This refers to the former shipment, of course, not to the consignment you have recently sent.

Yours very truly,

C. C. JAMES,

Deputy Minister of Agriculture.

R. F. Holtermann, Brantford, Ont.

Report by the Director of the Scientific Department on a sample of Canadian Honey, received from Mr. Harrison Watson, Curator of the Canadian Section, Imperial Institute, and labelled "Pure Machine Extracted Honey, Exhibit of the Ontario Beekeepers' Association," embossed on the capsule on the cork of the bottle "Warranted Pure Honey."

The sample as received from Mr. Watson was an opaque and nearly white crystalline

solid. Its smell was aromatic, recalling in some degree that of peppermint. Its reaction was faintly acid to litmus. The sample has been submitted to examination and analysis with the following results, showing the percentage of the chief constituents:

Water (exposed at 100°).....	18.07	per cent.
Ash (Mineral constituents)....	0.16	" "
Matter insoluble in water.....	trace	" "
Dextrin and Lavalose	81.44	" "
Starch and Dextrus.....	none	" "

The honey exercised a levorotatory action on a ray of polarized light; the specific rotation was high— $[\alpha]_D = -11.85$. This levorotation was not affected by boiling the honey with dilute acid.

From the results of this examination I am of opinion that this sample consists of genuine unadulterated honey.

WYNDHAM R. DUNSTAN.

May 5th, 1897.

Notes and Pickings.

BY D. W. HEISE.

(CONTINUED)

Dr. C. C. Miller in a straw in Gleanings, 477, says: It looks strange to see supers nearly filled with honey, and no sealed honey in the brood frames; but that's common this year. Strong colonies and a sudden flow of great abundance. "That's just the order of things at Bethesda. No laid down rule will apply this year, especially so in regard to swarming. All rules are utterly ignored. The bees will and have done all sorts of funny things, and when such is the case, how convenient it is to have the queen's wing clipped.

Excessive swarming is much complained of this year. The rather backward weather during the middle of June, and the intense heat of the past two weeks, together with a sudden and abundant flow of nectar is no doubt the cause.

The extreme high temperature which we have just passed through, has caused a considerable number of combs to melt down in several apiaries in this locality, one comb only in my own yard. It makes a very bad mess of things and perhaps could be avoided by proper care.

Raspberry and Alsike clover opened up simultaneously in this locality. I think I never knew raspberry to secrete nectar so abundantly as this year, and the bees showed a decided preference for the berry