

capped honey. The difference appears to be in the neighborhood of two per cent.

This Association is going to appoint a committee to make a practical test of these samples which we have brought here and when they have completed their work you will have an opportunity of examining them for yourselves.

You get some idea of the relative viscosity of the honeys by turning the bottles upside down and noticing the length of time it takes the bubble of air to ascend. The samples are merely lettered. They comprise ripe capped honey, honey partly capped and honey entirely capped. The first named are the most viscous. After the Committee has reported on the quality of the honeys I will label them. We wish to learn if practical men can pick out the samples of ripe honey, if their judgement in this matter coincides with ours, which is that the capped honey is a better quality of honey than that from uncapped comb. The latter honeys were collected on July 1st, the former on August 6th.

With regard to the question of water in honey, I feel that its importance lies really in this matter of ripe and unripe honey, water is not used as an adulterant of honey. The chief adulterant of honey is glucose syrup; that is to say the sugar which is manufactured by the action of dilute acid upon starch. Glucose is a sort of generic term and dextrose and levulose are specific terms. The word glucose chemically would include dextrose and levulose. Glucose is what results from the action of dilute acid upon cane sugar. That has been found in one or two instances and it is fairly readily detected. If honey were adulterated by the addition of cane sugar that

would also be comparatively easy of detection. In order to show you what genuine honey would be with the addition of 5, 10 and 15 per cent of water, I have in these bottles just mixtures. The bottles are labelled according to their contents.

It was suggested to me last night that I might just say a word or two with regard to the position of honey as a food. I have already spoken at some length and you already may be somewhat tired of this subject.

Voices: Go on.

Prof. Shutt: It is altogether apart from the question of this investigation which I have undertaken. One word further, however, about our experiments. I believe it would be better to keep the honey upstairs. Everything seems to point to that plan as producing a better class of honey; but I can't say that there is very much difference in our samples between the honeys kept in the cellar and those upstairs. It does, however, seem to be a fact that the honeys in the cheese cloth covered bottles contain a little less water upstairs than those which were in the cellar, but owing to the unsatisfactory character of the examination I do not want at present to speak definitely upon that matter.

Mr. Gemmell: I have found that the specific gravity of capped and uncapped honey is very different.

Prof. Shutt: I had a conversation with Mr. Percy Selwyn, an Ottawa bee-keeper, and he said there was a great difference between seasons on this matter. If you take a moist, damp, cold season you get water in honey and it takes a long time to ripen up, before the bees cap it. I said if you were to take that unripe honey in the comb you could dash it right out; but in a dry season the honey would be too thick