

Agricultural College, who has kindly furnished us with the following reply, which we publish for the information of our correspondent and that of the general reader. It is fortunate that we have such a source of information open to us on occasions of this kind, and we are sure the general public will appreciate as highly and as thankfully as we do the very great kindness which marks the relations of the College and its faculty with outside inquirers, and the ability with which they so readily solve what appear to be difficult questions. A reference by ourselves to Professor Cook's very able work, *The Beekeepers' Guide*, would have enabled us to answer the questions of our correspondent, had it occurred to us, at the moment, to have applied ourselves to that *Beekeepers' vade mecum* for the necessary information. On page 333, we find these to be the characteristics of the louse as they are stated by Professor Cook: "The *Erisoma imbricator* (Fitch) works on the beech tree. Its abdomen is thickly covered with long wool, and it makes a comical show as it wags this up and down at the least disturbance. The leaves or trees attacked by this louse, as also those beneath the trees, are fairly gummed with a sweetish substance." Every beekeeper should have a copy of this work. The following is Professor Cook's reply:—

EDITOR CANADIAN BEE JOURNAL.

DEAR FRIENDS.—The lice which you style "cotton-back honey lice" are the common woolly beech lice, which I refer to in my *Beekeepers' Guide*, page 333, under the name *Erisoma imbricator*—Fitch. The more correct name now is *Schizoneura imbricator*. They pass the winter in the egg state. The small eggs can be seen on beech twigs by close examination. In the spring the queer lice with their long woolly covering come from these eggs. These

increase by agamic reproduction,—that is, there are no males. The young are born alive, or, as we say, are oviparous, instead of oviparous where eggs are laid. These increase very rapidly and by fall are very numerous on the branches. They swing their abdomens in a comical way as we disturb them. They seem very courteous, but always bow with the hind end of the body. They secrete much "honey dew" which is dark and rank. Fortunately the honey bee seldom takes it, only when it can get nothing else; so this sweet is rarely stored in our hives. The louse, like all plant lice, is very injurious to the trees. The nectar, too, runs down on the tree and attracts a fungus which also robs the tree of its vigor. Your name is not desirable, as we already have a good one: "the beech tree woolly plant louse," and besides there are many other similar lice which secrete honey dew; so we could not know which one you referred to unless you also used the word beech tree as a qualifier. The use of the sweet is evidently to attract ants and wasps, and thus protect the lice from birds and other enemies. It is very common to see wasps and ants about the lice, sipping the nectar; though, as I have already said, we seldom see bees about them. This honey-dew is like commercial glucose, too poor and unworthy to attract bees, unless it is this or nothing.

Yours truly,

A. J. COOK.

Agricultural College, Mich.,
Nov., 23rd, '92.

FOR THE CANADIAN BEE JOURNAL.

CELLAR AND OUT-DOOR WINTER-
ING, ETC.

MR. EDITOR,—Now is the time to begin to protect the bees for winter. See that all colonies left out are well protected from frost. Whatever the hives are protected with, let the same be dry and thoroughly screened from driving rain or snow. Absolute dryness is very important to be maintained all around the beehive as well as inside it. If frost ever gets entry of the hive, damp is sure to follow. For the best results, the packing must be sufficient