

society is ; What is the use of it ? This is a practical age, and farmers cannot afford to look at anything they have no use for. Now, an entomological society is simply another name for a society of persons who are making some sort of observations about insects—not merely butterflies—but grubs, bugs, worms etc., and the points I wish to show are, that some knowledge of insects is very important to all of us who are engaged in agriculture, so that we may rightly distinguish between our insect friends and our insect foes ; and some knowledge of insects is also necessary in order that the farmer may know how to deal with his insect foes, and how to make the most of his insect friends.

Now to see how to deal with insect foes, we must first of all learn something about them ; there are many, like the Hessian Fly, whose grubs do all the harm and many others, who themselves as well as their grubs do the harm, like the Colorado Beetle. Insects that themselves do harm, do so by mouths that bite or mouths that only suck. Those that bite have jaws, with which they bite off solid pieces of food from the plants or animals they attack. Some poisonous material must therefore be placed on *their food*, so that when this food is eaten by the insects they may be destroyed by the poison. Those insects that suck, have no jaws, but sharp hollow beaks through which they suck the juice of the plants or blood of the animals they attack. For sucking insects it is therefore useless to place poison on the plants, because, having no jaws, they only feed on liquids such as juice or blood, for which they have to sink their beak-like tubes beneath the surface of the object attacked. For this class of insects, substances, which kill by coming into contact with the bodies must be used, e.g., kerosene and soap emulsion, or oils, which stops up the breathing organs. The losses in agricultural products from insects and their grubs is reckoned at fully ten per cent.

A few of our common insect foes in this country are pretty well known. There is the red turnip beetle, which destroys our Swede turnips [example of *Entomoscelis adonidis* Fab, produced and handed round]. The little turnip "fly" which destroys the young turnips when in first "leaf". These "flies" are really little beetles, and, like all beetles, pass through the grub and chrysalis stage, so that if we learn the probable date for hatching (for all insects are very regular) we shall know when to sow the turnip seed—They should be sown either sooner than the beetle hatches, so as to get their second or third rough leaf before it hatches, or they should be sown so much later than the hatching time so that when the "flies" hatch they have to starve. And we must now, it seems, look out for the Colorado beetle, or potato bug. It has appeared in two or three places in Alberta this summer, and last year was injurious in several parts of Manitoba. The red turnip beetle is sometimes mistaken for it, but the potato bug has ten stripes altogether, and the red turnip beetle has only three, but both are destroyed by the same treatment (Paris green solution).

Now, all the insects I have mentioned have jaws, so that they are "biting" insects, and the remedy against them is to sprinkle poison on their food.

Then there are the grubs that work underground or at the surface of the soil. We all know the garden "cut-worm". This is a caterpillar, which eventually develops into a very common moth that flies about our lamps and windows in the fall, and which is easily caught and destroyed. When in the "grub" stage, it is very destructive to our young cabbages and other young plants. It lodges during the day just under the soil—you can find it in the mornings by the small hole it leaves in the ground near the plant it has attacked over night. They come out only at night, and then they nibble through the small stem of the plant, and sometimes draw the leaf down into the soil to consume at leisure. Now these grubs are very fond of bran, so that a little damp bran with a very small quantity of dry Paris green stirred in (proportions 50 to 1) will be sure to destroy them, or wrap paper round your cabbages when you plant them out. Another very common grub in our potato patches is the wire-worm. These are a nuisance in the way they work into our best potatoes. The wire-worm lives in the ground through the winter, and in the spring, after going through one more stage (pupa), develops into a small brown or black beetle, called a "click" beetle, because when the beetle is touched it gives a quick spring away. These beetles we should learn to recognize as our foes, and should kill them all on sight, because it is from their eggs that the next crop of