

Remedy.—This insect is so well known to fruit growers that very little need be said of it. Enquiries as to the best methods of treating it are received constantly. I have no hesitation in saying that for this, as well as for the Canker Worms (*Anisopteryx vernata* and *A. pometaria*, Harr.) and the Plum Curculio (*Conotrachelus nenuphar*, Herbst) the most economical and certain remedy is spraying the trees with Paris Green or London Purple. As being of a more uniform strength the former is preferred.

As to the efficiency of this remedy, if properly applied, there can be no doubt. Prof. Forbes gives the following as a summary of his systematic and thorough experiments for 1885 "attending only to the picked apples and condensing our statements of results to the last extreme, we may say that under the most unfavourable circumstances, Paris Green will save to ripening, at a probable expense of 10 cents per tree, seven-tenths of the apples which otherwise must be conceded to the Codling Moth." (Forbes Miscellaneous Essays on Economic Entomology, 1886, p. 41.)

Mr. B. Gott, of Arkona, Ont., says: "Notwithstanding a certain amount of trouble and the great care necessary in applying these poisons I am satisfied that with proper caution and if properly applied they may be used as deterrent remedies against the two chief enemies of our plum and apple crops."

There are however certain difficulties in the way of obtaining satisfactory results from this remedy. The amount of the poison to be used is so small that it seems almost impossible to induce fruit growers to use it only of the strength recommended and to stop applying it when the tree has received enough.

Then again there seems to be a difficulty in always obtaining the poison of a regular strength (*i. e.* containing always the same proportion of arsenious acid.) Mr. C. R. H. Starr writing from Port Williams, Nova Scotia, says. "We were less troubled with insects this season than in some previous years. Our chief enemy the Canker-worm has been kept in check by printer's ink or a substitute for that article and Paris Green or London Purple. Many of our orchardists have not had satisfactory results from the latter method, the great difficulty being in the uncertain strength of Paris Green. Take my own experience for instance. I made the attack when leaves and blossoms were about half or less out, the worms hardly visible, using $\frac{1}{2}$ lb. to a kerosene cask full of water. On some trees this seemed to be sufficient, at that early stage, but later finding in some quarters that they had grown and were doing much damage, I doubled the quantity (*i. e.*) $\frac{1}{2}$ lb. to the same cask, with the result of bringing off nearly all the leaves and of course fruit as well. Some of my neighbors about the same time used $1\frac{1}{2}$ lbs. to the same quantity of water without serious effects. Some of our farmers have decided they are liable to do more harm with Paris Green than to allow the Canker-worms to have it their own way. Many have gone back to the paper bands and ink, I have used a composition made of the most potent parts of printer's ink with satisfactory results, and at very trifling cost compared with the ink."

In the above experience Mr. Starr would have been wiser to repeat the weak application, rather than to double the quantity of poison.

The efficiency, and when properly applied, the safety with which these arsenical compounds can be used upon vegetation, have now been established without a doubt by the experiments of Professors Riley, Forbes and Cooke. I therefore give below what I consider the most useful proportions of Paris Green, the only one of these compounds with which I have experimented to any extent. I regret that as yet I have not compared the different makes of pumps and nozzles for the distribution of these poisons, so I am not in a position to recommend any one above the others. Paris Green is an arseniate of copper said to contain about sixty per cent. of arsenious acid. It is therefore very poisonous and must be kept out of the way of children and domestic animals. It is also very corrosive and if used too strong or carelessly, will injure the foliage of plants. This material can be used as an insecticide in two ways, either as,—