

do not know exactly when that time will come, and as patience without potatoes may seem to many, a tedious virtue, I opine there can be no sin in doing what we can to hasten the wished-for result."

A vast number of artificial remedies have been tried most of which, however, are utterly worthless. The only two practical and reliable ones are *hand picking*, and the use of *Paris Green*. In the summer of 1871, the attention of the Department of Agriculture, for Ontario, was called to the damage the Colorado Beetle was doing on the Western frontier. The Hon. John Carling, the energetic Minister of that Department, at once commissioned Mr. Wm. Saunders, and the writer of this report, to proceed to the West and thoroughly examine the district, and report to him as speedily as possible the result of their labours and also of all experiments they might make, so that the general public might have some reliable information. We accordingly made our investigation, and found that the beetle was to be seen in enormous numbers, and had been and still was doing a great deal of damage, in some cases destroying whole fields of potatoes. We made various experiments with different chemicals and mixtures, using *Arsenious Acid*, *Powdered Cobalt*, *Sulphate of Copper*, *Bichromate of Potash*, *Powdered Hellebore*, *Carbolate of Lime*, etc., but we found that the cheapest and most practical remedy was *PARIS GREEN*.

The many entomologists and agriculturists who have experimented on this insect, with various poisonous and other substances, in those portions of the United States where it has been so destructive for some years past, concur in recommending the use of *Paris Green*, diluted with flour, ashes, or air-slacked lime, as the best remedy known for destroying the insect, both in its larva and beetle state, without injuring the plant. The result of our experiments and investigations confirm this opinion, and this remedy is, no doubt, a reliable one, provided the *Paris Green* be of good quality. Our experience has also satisfied us that flour is a much better substance to mix with the green than either ashes or lime, as the insects eat it more readily, and, at the same time, it adheres more tenaciously to the surface of the plant, and hence is not so easily washed off by rain. We found good effects from a mixture of one part, by weight, of *Paris Green*, with 10 or 12 parts of flour, dusted lightly on the vines early in the morning, when the dew is on the foliage.

Where only a small patch is cultivated, the mixture can be readily applied by means of an ordinary flour dredger; but when larger quantities are grown, we would suggest the use of a round tin box, about nine or ten inches in diameter, and four or five inches in depth, with a tightly fitting lid, and with a bottom either perforated with small holes, or covered with fine wire gauze. This should be attached, by means of a hollow handle, to a stick of any convenient length. With such an instrument, which may be obtained at a very trifling cost, a large piece of ground can be gone over in a short time, and the mixture applied almost as fast as the operator can walk.

QUANTITIES REQUIRED, AND PROBABLE COST PER ACRE.

After a careful estimate, we consider that three pounds of the *Paris Green*, mixed with its due proportion of flour (30 to 36 pounds), will, if economically used, be found sufficient for one acre of potatoes. Assuming 50 cents to be the ordinary retail price per pound of *Paris Green*, every application of the mixture would cost from two to three dollars per acre, exclusive of the labour. If the insect is very abundant, two or more applications may be required, as exposure to wind and rain will eventually remove the powder entirely from the leaves, rendering them liable to further attacks. Some discretion should be exercised in selecting a suitable time for using the mixture, which should not be applied during high winds, or immediately before a rain storm.

As this mixture is of a poisonous character, ordinary care should be used in handling it, to avoid inhaling much of the dust when applying it, to wash the hands after each applica-

NOTE.—Seeing the importance of taking immediate action in carrying out the suggestions made in the report of Messrs. Saunders and Reed, the Department of Agriculture has effected such arrangements with a wholesale drug house in the City of Toronto as will enable farmers and others to obtain a reliable quality of *Paris Green* there at 30 cents per pound. It will be put up in one pound packages, as suggested, with full directions for use, and may be purchased in quantities of not less than ten pounds, by remitting the amount of cost to Messrs. Lyman Bros. & Co., of Toronto.