

There is scarcely any land free from them or any crop that is not subject to their voracity. They occur wherever grass will grow, being particularly harboured among clover roots, and are always prevalent in meadow and pasture-lands, seeming to thrive best in the vicinity of swamps and woods. When lands are broken up the first crops sown are often almost totally destroyed by the larvæ which infest it and remain in it for some years afterwards.

Young oats, wheat, rye, barley, etc., suffer much from being partially or entirely cut off below the surface; the wireworms destroying manifold the amount actually devoured. Wood says that while only eating one-tenth as much as a similar sized caterpillar, each wireworm destroys ten times as many plants. Hops, cabbages and many root-crops are also injured; turnips, perhaps, more than any, as they are cut off when young, and have the roots badly eaten into when larger, as many as twenty or more grubs having been found at one turnip.

Conflicting opinions are held as regards the liability of potatoes to be attacked. Some even propose the use of slices of these tubers, among other substances, as traps to entice the wireworms to in gardens. On the other hand evidence has been often adduced to prove that land sown with potatoes was in a great degree cleared of infesting larvæ, which it was asserted do not touch the potatoes and are consequently starved out.

In gardens, the wireworms destroy salads, etc., and the gardener has also often to lament the loss of his beautiful flowers, such as carnations and lobelias. The list of cultivated plants attacked by them could be greatly lengthened, and it is fortunate for Canadian farmers and gardeners that as yet they are not so abundant and destructive here. Nevertheless considerable damage is done to many crops on this continent, and the late esteemed Dr. Asa B. Fitch (one of the greatest of American Entomologists) has treated of wireworms—see his 11th Report—almost as exhaustively as Mr. Curtis. It appears that Indian corn, one of the largest and most important crops grown in North America, is the greatest sufferer, especially when (as is usually the case), it is the first crop planted in new land, or when the season is cold, wet and late. The seed corn is attacked by the wireworm, which bores its way into the kernel and is often found half buried therein when the hills are examined. Upwards of thirty or forty have been found in a single hill, and nearly the whole of the seed planted is sometimes destroyed. The still more valued cereal, wheat, does not escape serious attacks, and, as in England, *all* crops are more or less liable to be damaged. An exception may be made in favour of buckwheat, which has been strongly asserted to rid the land of them, but there are doubts as to its efficacy in so doing, as well as many objections to it as an uncertain and inferior crop. All kinds of grasses, from the choicest timothy to the coarsest swamp sedges seem to be the chief and favourite diet of wireworms; so that grass and meadow lands are badly infested for a year or two after being broken up.

Dr. Fitch was of opinion that the wireworms of this country do not live more than two years (instead of five), as it is only for that length of time that new fields are so much infested with them.

As the country becomes more densely settled, and, through the breaking up of the waste lands, they are gradually deprived of their natural food-plants, they may come to be equally abundant and voracious amongst us as in England, so that it may be well briefly to mention the measures adopted to destroy them there.

For gardens or small lots hand picking is most strongly recommended as the surest way of ridding them of these vermin; but where labour is so scarce and dear as in this country, such a measure is hardly feasible. By this method 18,000 wireworms were gathered from a field of one and a half acres, and in another instance over 60,000 from an area of three acres. Women or boys were employed to traverse the rows of plants, loosen the soil around the roots, put all the wireworms into jars, or other suitable vessels, and press down the soil around the roots.

One of the most successful remedies on a large scale is a mixture consisting of two parts of quicklime, three parts of soot, and one part of coarse or refuse salt. This is used as a top-dressing, being applied immediately after compounding, and should be well rolled in. It has the advantage of being perfectly harmless to the crops. Indeed it is a most excellent and powerful fertilizer, as well as a destroyer of all kinds of insects and many

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of species,