

The Diamond Back Moth (*Plutella cruciferarum*) in June and early July was extremely abundant throughout the Territories and in many parts of Manitoba, practically the whole of the cultivated area of Alberta, Assiniboia and Saskatchewan was visited by this pest, and many fields of cabbages, cauliflowers and turnips were completely destroyed. The larvæ of this moth also attacked lettuces, radishes, rape, etc. A field of turnips badly infested with this pest presents a weird and ghastly appearance. The riddled leaves are bleached and white like skeletons. Parasites have destroyed immense numbers of the larvæ. Remedy, as to turnips, young cabbages, etc., except lettuces: Paris Green solution as recommended for the Red Turnip-beetle. The chief difficulty is in getting at the underside of the leaf, as the larvæ principally attack from underneath. In the case of lettuces, hellebore should be used. Scatter on the eaves—as much underneath as possible—when the dew is on, a mixture of 1 lb. of hellebore to 2 lbs. of sifted ashes.

The Colorado Beetle (or Potato-bug) has again made its appearance in Central Alberta, though not in large numbers. On 28th June both larvæ and mature insects were seen in several potato fields, but no great damage done. As this is the second year of appearance of this insect in Alberta it is possible these are an advance guard, and it is well to look out for them. Remedy, the same as for the Red Turnip-beetle. Do not kill the lady-birds. This bright scarlet little beetle and its larvæ greedily devour the young larvæ of the Colorado beetle.

The Three-lined potato-beetle has been more troublesome than the Colorado beetle. In some localities in the south of Central Alberta it has seriously damaged potato crops, but its presence elsewhere has not been reported. This beetle was the chief insect pest of potatoes in Ontario until the arrival of the Colorado beetle, which it seems to have heralded. Remedy, the same as for the Red Turnip-beetle.

The Rocky Mountain Locust has been very bad in parts of Manitoba, north of Douglas, and around Aweme. This pest is dealt with in the May, June and July numbers of the leading agricultural journals, issued from Winnipeg, so fully and clearly that its characteristics and remedies need not be repeated at length. In the Nor'-West Farmer, for instance, of 21st May, 1900, is a very good account of them. The insect lays its eggs in the soil among the stubble in the early fall (August and September) and they hatch in the following spring. If, therefore, the soil be deeply fall plowed the eggs will be buried so deep that the young when they hatch cannot get to the surface.

Outworms,—(in Alberta and Assiniboia principally the garden ones such as *Agrotis clandestina*, *Plusia brassicae*, and *Carneades ochrogaster*) have caused the usual amount of loss and replanting in several districts among cabbage and cauliflower growers. It is difficult to understand why there need be any loss from this pest when the remedy is so easy. Remedy: Take say 50 lbs. of bran and very slightly moisten it with water, and sweeten with a little sugar. Then mix well with it enough Paris Green to just color the bran (e.g. about a lb. of Paris green). The cutworms will eat this bran in preference to the cabbages. The common cutworm is not a climber, so wrapping a piece of smooth paper about 3 inches in breadth around the stem of the young cabbage when planting out is a good preventive remedy. The paper should be $\frac{1}{2}$ an inch below the surface of the soil and $2\frac{1}{2}$ inches above. Keep the garden clear of weeds and rubbish, old cabbages or cabbage stalks in the fall, so that the cutworm moth will have no attraction for laying its eggs. A more serious trouble, however, has been caused by another kind of cutworm in Manitoba. This is the glassy cutworm (*Hadena devastatrix*), and it, in the spring, committed very serious injury to wheat crops north of Stonewall. This pest was present in some fields in thousands, and marched in a phalanx devouring as they travelled. The remedy for the glassy cutworm is not easy. The grub burrows into the earth in the daytime, and comes to the surface to feed at night. It eats the whole plant, beginning just below the surface. Thoroughly spraying the grain along the front of their attack for a space of ten feet with a solution of Paris Green has been found successful. If however the crop has been ruined, turn chickens or turkeys into the field for a day or two, and then sowing oats for green feed might be tried.

Wireworms. These are the larvæ of the "click beetles." This is a pest very difficult to get at. There are several species of wireworm. They pass the winter in cells in the soil, so that for some species a plowing in August, and for others a plowing late in