

seen. This is when the second brood is in the larval condition beneath the ground. This period is what the farmer must discover for his own neighborhood and take advantage of his knowledge to get his turnips up and "into the rough-leaf" before the beetles appear again. This period is, for this part of Canada, about the middle of June, a little later in the Maritime Provinces and earlier in the west.

3. Active poison. I have tried some experiments with Paris Green and have had most satisfactory results. A mixture was made of 1 part of Paris Green to 50 of Land Plaster and this was sown along the rows of turnips, directly they appeared. A single application was found sufficient and the plants soon pushed out their little bud of rough leaves and were not afterwards injured by the beetles.

A Turnip Aphis—(*Aphis brassicæ*, L.)

Attack.—Clusters of grey plant-lice, situated all round the bases of the stems and beneath the leaves of Swede turnips from which they suck the juices. Not noticed in numbers until late in the autumn when many of the turnips were found seriously injured and past recovery. Complaints of this injury have been received from Vancouver Island, Quebec and Nova Scotia, all of which were after the manner described above.

Remedies.—Of several remedies experimented with, the most satisfactory results were obtained with a Kerosene Emulsion made of the ordinary strength for general application, viz.: Kerosene or refined coal oil 1 pint, common laundry soap $\frac{1}{2}$ oz., rain water, $\frac{1}{2}$ pint. The soap was boiled in the water till all was dissolved, then the boiling soap suds were poured into a watering pot containing the kerosene and churned with a garden syringe until the emulsion was complete. This generally takes about 5 minutes but sometimes longer. When this emulsion is made it can be bottled up for future use. When using it either as a wash for sponging trees or for spraying, it must be diluted with 9 times the quantity of water. Should the oil in the emulsion after a time separate it is well to warm it and by violently shaking the bottle it will again become fit for use. In diluting the emulsion use warm water. With the Aphides above mentioned the wash was syringed amongst the clusters and one application was found sufficient. Single experiments with Pyrethrum both dry and in solution were found unsatisfactory, but possibly the material experimented with may not have been fresh.

The Red and Black Turnip Beetle (*Entomoscelis adonidis*, Fab)

Attack.—A showy scarlet beetle, with three black stripes down its back, and a black patch on the collar, about two-thirds as large as the Colorado potato beetle; but narrower in outline. Eating the leaves.

I collected on turnips at Regina in August, 1885, several specimens of this showy beetle. They were sluggish in their habits like most of the Chrysomelidæ, including their relative the Colorado potato beetle. They were not in sufficient numbers to do much injury, but were thick enough to show that with an increased cultivation of their food plant, they might develop into a troublesome pest. The specimens collected on the North-West prairies cannot be distinguished from specimens in my collection from Austria, in Europe. Should a remedy become necessary an application of Paris Green would be the most convenient.

POTATOES.

Potatoes have not escaped the effects of the dry weather in Ontario and Quebec, and although of good quality they are very small, and there is a serious shortage in the crop. Insect enemies have also levied tribute.