

INSECT PESTS.

BLACK VINE WEEVIL (*Otiorhynchus sulcatus*—Fab.).—This beetle is probably the most destructive insect pest, both in its larval and perfect stages, on strawberries that we have in British Columbia. The mature insect is brownish-black, about half an inch in length, with the long snout characteristic of all weevils. The larva is a small white grub which attacks the crown of the roots and so kills the plant. Mr. Thos. Cunningham, Inspector of Fruit Pests, recommends burning off the tops of the plants after the crop has been gathered. This has the effect of destroying the beetles, which shelter themselves amongst the leaves, and which they also attack. Dr. Fletcher says: "The only remedy which can be suggested for this beetle as yet is the planting of strawberries on new ground and frequent renewal of beds, the worst injuries being done to the old plants." Mr. W. T. Macoun, the Horticulturist of the Central Experimental Farm, considers the single crop method of growing strawberries the one which pays best, the fruit being finer and the land being kept clean much more easily. Some varieties which do not make runners freely might be left for two years.

WESTERN TEN-LINED JUNE BUG (*Polyphylla decemlineata*).—The larva of this insect, which is a large white grub, is a bad pest on many plants, amongst which are strawberries. In its larval stage it attacks the roots of plants, very soon killing them, by stripping off the bark from woody plants and biting off the root below the crown of strawberries and such plants.

DESCRIPTION.—The perfect beetle, like its prototype the May Bug or June Bug or Dor Bug of the East (*Lachnosterna fusca*—Frohl), has a disagreeable habit of coming through open windows and buzzing about, knocking themselves against walls, ceilings and sometimes against one's face, which it strikes with considerable force. The beetle is about one inch and a quarter long, with a thick round body half an inch or more in diameter, of a light brown colour, with eight white longitudinal stripes running the whole length of the wing covers and two short ones; the breast is covered with a brownish down, and the abdomen has three transverse stripes. The larva is about an inch and a half long, with a thick yellowish-white body and brown head.

As in the case of the Black Vine Weevil, a frequent change of the beds is to be recommended, as being the most efficacious remedy. It also resembles the last-named insect in its injurious habit, both in the larval and perfect stages. Naturally, on account of the nocturnal feeding habit of the beetle and the underground habits of the larva, it is a difficult insect to control. Referring to the June Bug, Saunders says:—

"It is very difficult to reach the larvae underground with any remedy other than digging for them and destroying them. Hogs are very fond of them, and when turned into places where grubs are abundant will root up the ground and devour them in immense quantities. They are likewise eaten by domestic fowls and insectivorous birds; crows, especially, are so partial to them that they will be often seen following the plough, so as to pick out these choice morsels from the freshly turned furrow. Trees infested with the beetles should be shaken early in the morning, when the insects will fall and may be collected on sheets and killed by being thrown into scalding water. Besides