

THE ARMY CUTWORM.

Euxoa (Chorizagrotis) auxiliaris Grote.

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SUMMARY.

The Army Cutworm (*Euxoa auxiliaris*) is new to Canada as a field pest, though it was recorded as doing damage to gardens in 1903. Since 1898 it has been a frequently recurring field pest in the state of Montana, where it has caused considerable damage.

In 1915 an extensive outbreak of this insect occurred in Alberta, and covered a territory of about 3,000 square miles.

The cutworms are variable in appearance, some of them being almost black, while others resemble the Red-backed Cutworm (*Euxoa ochrogaster*), although the back is more yellowish and striped (page 9).

The eggs are laid in the autumn, upon weedy fields. They hatch before winter sets in, and the cutworms may be half grown before the ground freezes up. They are dormant throughout the winter, and remain in the soil until the spring (page 11). Soon after the frost is out of the ground they come to the surface and feed freely upon the weeds. When the cutworms are numerous they soon destroy all of the weeds upon the fields where they hatched and have passed the winter. Then, like the Army-worm, they move off more or less in a body, in search of more food (page 13). In all of the cases that we have observed, their general line of march has been towards the northwest. Light appears to direct the larval migration (page 13). The larvæ are strongly attracted to artificial light, and can be captured at night in lantern traps.

The food plants include practically all weeds, all field crops such as grain, flax, beets, alfalfa, etc., as well as garden crops (page 12). When food is scarce the larvæ become very cannibalistic, and feed freely upon each other.

The larvæ do not feed from below the surface of the soil as do the common cutworms (page 12).

By the middle of May the most advanced larvæ have matured, but the majority of them do not form cells until about the first week of June. Most of them transform to the pupal stage within their earthen cells in about twelve days' time (page 14).

The moths fly from the middle of June till the end of September or early in October. They may aestivate during the hottest part of the summer and so appear to be double brooded (page 19). These moths, with those of *Noctua clandestina*, constitute a most annoying domestic pest. Most of them enter houses between the shingles or through cracks around doors and windows. They are not very strongly attracted by light, and the majority do not enter houses because of the lights in them (page 16). Light traps in the field are not a satisfactory means of control, for they capture very few of these moths (page 16).

The eggs are laid from the last week in August to the middle of October. Although apparently most of them are laid in the soil, the moths always choose places where there is plenty of green growth near which to lay eggs (page 17). Weedy summer-fallow is a specially favourable place, for the moths hide under