

Length 26 mm. Head light brown notably reticulated with darker brown; on either side of the median suture is a rather wide dark brown irregular band extending from the vertex to near tip of clypeus the latter being margined with the same shade of colour; ocelli and mandibles black. Body, ground colour dull pinkish-white, closely marbled above with blackish-brown, giving the whole body a dark appearance; dorsal stripe narrow, pinkish-white, distinct on all segments; lateral stripe similar to dorsal one but less distinct. Stigmatal band pale, rather ill defined; spiracles yellowish, black rimmed. Thoracic shield brown divided by dorsal and lateral stripes. Tubercles indistinctly blackish, I, II, III and IV of similar size, IV immediately behind the centre of spiracle on segment six, tubercle V smaller than IV close to spiracle and in a line with its upper side; the other tubercles similar in size to III. Anal plate pinkish-brown. Thoracic feet yellowish-brown; prolegs concolorous with venter; crotches reddish.

Moths commenced to emerge in captivity on June 5 and the last to appear in my cages was on June 7. Outside, they have been collected from the beginning to the end of that month but were commonest during the first two weeks. The moths are of the usual cutworm size with pale gray primaries showing a brownish area on the middle portion; the head and thorax are also gray while the abdomen and secondaries are dull brown.

The economic importance of the Brome-grass Cutworm lies chiefly in its relation to the production of the grass upon which it feeds. Observation, combined with reports from threshermen in various parts of the province, show that the insect occurs in large numbers over a wide area. The moths have also been taken in Saskatchewan and Alberta. It is, therefore, probable that the larvæ will be found to occur in equal numbers on the brome-grass fields of Saskatchewan and perhaps in Alberta also. In Manitoba the insects are usually so abundant in the sheaves at threshing time that they cause considerable annoyance by getting into the seed while the racks frequently present a mass of crawling caterpillars. When one views a field of brome-grass inhabited by these insects, however, the actual damage done to the plants appears to be remarkably small considering the number of larvæ present. This is probably due to the vigorous growth of the grass after harvest which thus largely overcomes the insect's attack upon it. The species is not, therefore, a serious menace at the present time though the damage it does is probably much in excess of the usual estimates. Should it increase to still greater numbers, however, the loss would have an important bearing on the pasture situation of the west, brome-grass being recognized as one of the most valuable fodder plants of that region.

We know of no actual means of suppressing this pest but the following suggestions might be of advantage in attempting its control:

- (1) Plough affected fields in July and cultivate them later on to prevent further growth; thus starving the young caterpillars.
- (2) Destroy the insects shaken into the racks.
- (3) Feed brome-grass straw and burn the refuse around where the crop has been threshed. This will kill a large number of the cutworms which drop to the ground while the sheaves are being handled and which hibernate in the vicinity amid the chaff, etc., scattered round by the thrashing operations.