

has been common in the counties around Toronto for some years, and has done much injury to timothy, 3 species of spear grass and to *Triticum repens*, L. Farmers knew of it and said it was 'the blight.' About June I demonstrated to all, that it was the work of a mite, and read a short paper on it before the Natural History Society of Toronto, and showed specimens of the injured culms and the living mites."

In the beginning of July, I received through the Hon. Minister of the Interior a letter and specimens of timothy injured in the manner described above, and forwarded by Dr. Ferguson, M. P. for North Leeds, with the statement that it had been common for years in all good seasons. "When there are great drought and a small crop the insects have not appeared, but when the growth is vigorous and there is a good deal of moisture, they have appeared almost invariably."

Remedy.—The remedy suggested by Dr. Ferguson is probably the best that can be adopted. He says: "When this attack is general the course here has been to put the mower in and cut the crop. Usually, however, the attack is not general, although sufficiently so to enable anyone looking at the field to see the white tops here and there where the insect has attacked the stem." And again, writing later, he says: "It always appears when we have a luxuriant growth resulting from frequent showers and followed by great heat. Many of our meadows are attacked I should judge, to at least, five per cent. of the stalks. The effects are never evident until after the head is fully out of the blade. As none of our spring wheat is sufficiently forward yet, I have not been able to get a sample in the grain stalk."

Dr. Ferguson is of the opinion, with many others, that the injury is done by a worm in the stem. If this view is correct, it may possibly be the "Wheat-stem Maggot" that is the culprit

In the third report of Prof. Lintner, State Entomologist of New York, just issued, he describes a mite as attacking timothy, so that "the infested places looked as if they had been scalded." The mite he refers to, however, is black with red legs, whilst those referred to above, are white and transparent.

The Army-worm (*Leucania unipuncta*, Haworth.)



Fig. 1.



Fig. 2.

Attack.—A brown striped Caterpillar destroying all the leaves of grass and cereals. When occurring in large numbers, migrating in bodies from one food patch to another.

During the past summer sensational accounts appeared in the newspapers to the effect that the whole hay crop on the Sackville marshes in New Brunswick, was being demolished by the caterpillar known as the Army-worm. This caterpillar (Fig. 2) is produced from eggs laid by a light brown moth (Fig. 1), with a slight metallic lustre, about an inch in length, when the wings are closed, with a small white spot on each wing. I have never been able to trace more than two broods of this insect in Canada; but in the United States they have three. The eggs are laid in the autumn, and like many of the Cut-worms pass the winter as very small caterpillars. In the following spring they attack the young grass and grain crops. The moths from these caterpillars appear in July, and the eggs laid by this brood produce the moths in August and September.

Upon the appearance in the press of the items referred to above, I at once wrote to the infested district for reliable information, and through the kindness of Prof. Burwash and Mr. W. F. George, both of Sackville, N.B., I found that these accounts were much exaggerated. Prof. Burwash writes, after extensive enquiry amongst the farmers of Westmoreland County: "I find that reports vary considerably as to the extent of injury. The most careful and accurate