

has taken occasion to question several persons who had made gardens in vacant lots and in fields near the city and in all cases the slug was reported to have been present in numbers sufficient to cause appreciable damage. In one garden the slugs had eaten into the tubers to such an extent as to destroy two thirds of the potato. Several slugs were found in a single potato and associated with them were many wire worms (probably larvæ of the beetle *Agriotes mancus* Say) and sowbugs (isopods). The wire worms have been reported as very abundant in potatoes, both in Syracuse and in Rochester, N. Y. Damage from the slug has been reported from Rochester, Canandaigua and Geneva.

It is evident that this slug is becoming a troublesome pest in garden truck farms and small gardens and a problem arises as to the best means of combating its ravages. It can be controlled when its depredations are confined to the surface plants by spreading fine ashes about the plants, which cause the animal to exhaust itself by the copious flow of mucus, induced by the irritant action of the ashes. But this will not affect those individuals that enter the ground and attack the tuber below the surface. It has been suggested that if the grass surrounding the garden patch be kept short it will prevent the slugs from hiding near the garden during the day, the active time of the species being at night. The placing of boards about the garden will also act as a trap, the slugs retiring beneath these boards during the day when they may be collected and killed.

This slug is one of the commonest snails in western New York. In many parts of Syracuse it is abundant after rains, crawling over the sidewalks, leaving behind it a slimy, glistening trail. Its tendency to adopt the products of the garden for food in place of its natural food indicates that it must be classed among the agencies injurious to farm and garden products.

It may be of interest to note that a related species of slug (*Agriolimax campestris* Binney) has been observed<sup>2</sup> to eat plant lice

<sup>2</sup> F. M. Webster, Bull. 68, Ohio Agric. Exp. Station, pp. 53-54, 1896.

(*Phorodon mahaleb* Fouse.) in considerable quantity. Under these circumstances it would be placed among beneficial animals. Observations on the natural food of these small slugs would be of interest and value.

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#### THE YELLOW CLOTHES MOTH

SINCE my note on the yellow clothes moth was published, I have learned with regret that I overlooked a record of original observations on this species by Professor Glenn W. Herrick, published in 1915, in his "Insects Injurious to the Household." It is a matter of interest that the two accounts agree almost exactly with respect to the details treated in common.

Professor Herrick had already noted the common distribution of *Tineola* as compared with *Tinea*, the number of eggs laid (one individual), the appearance of the egg, the hatching period, the approximate pupal period, and the fact that the first brood for each year must be mainly derived from eggs of the preceding year.

In regard to the latter point, it may be added that, while as already noted, moths may emerge in every month of the year, there are two periods of much greater abundance. The first begins about the end of April in New York City and lasts through June. With the estimated minimum growth stage of ten weeks, it is unlikely that any of this first brood represent eggs of the same year. During the summer, the flying stage was common enough but nothing like that of the preceding months. In late August again and through September there was another period of abundance, the result undoubtedly of the development of the eggs of the first large brood of moths. Figuring from the whole season it would appear a safe conclusion that the average period of active larval growth is about three months. The actual growth periods, including the winter season, are approximately three and one half months (June-September 15), and eight and one half months (Sept. 15-June).

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