CEYLON ENTOMOLOGY.

The following extract is taken from the Progress Report of the Government Entomologist for the third quarter, 1925.

TEA.

An outbreak of Red slug *(Heterusia cingala)* was reported from an estate in the Galaha district. A large number of the caterpillars were received for breeding purposes, but the great majority of these were found to be parasitized by the maggots of a Techinid fly. A few moths were bred out and further investigations into the life history of this pest are in progress.

Outbreaks of Tortrix *(Homona coffearia)* have been reported from estates in districts where it is not usually prevalent.

The Tea Leaf-roller *(Gracilaria theivora)* has been reported from a few estates.

A serious outbreak of the Spotted Locust *(Aularches miliaris)* occurred on an estate in the Madulkelle district. The interplanted dadaps were first of all completely stripped over a large area and the tea was damaged to some extent. It has been calculated by the Superintendent that upwards of four million hoppers and winged adults were collected and destroyed during the outbreak. The Entomologist visited the estate and gave recommendations for control.

Tea mites have been prevalent on many estates, especially during the dry periods in July and September.

COCONUTS.

An outbreak of the Spotted Locust was reported on an estate in the Kurunegala district.

The caterpillars of the butterfly *(Elymnias fraterna)* were reported to be attacking young palms on an estate in the low-country.

The outbreak of *Nephantis serinopa* in the Negombo district mentioned in the last progress report was not so serious as was anticipated and no special investigation was needed.

PADDY.

An outbreak of the leaf-folder *(Marasmia bilinealis)* was reported from the Southern Province.

A small outbreak of the leaf-eating caterpillar *(Lenodora villata)* occurred at the Experiment Station, and the opportunity was taken to work out the life history of this minor pest of paddy and to prepare drawings of the different stages.

TREATMENT OF COTTON SEED BY HEAT FOR PLANTING FOR THE DESTRUCTION OF PINK BOLLWORM.

In the absence of definite knowledge concerning the action of carbon di-sulphide on the viability of cotton seed, growers again availed themselves of the use of the Montserrat Company's citrate of lime drier, which in the past had given excellent results in the treatment of seed by heat for planting.

All the seed planted in 1922 was treated in this manner and the work of supervision was again placed in the hands of the Assistant Curator. The total number of bags treated amounted to 657 or approximately 50 tons of seed.

In view of the doubt which existed in 1922 concerning the action of carbon di-sulphide on the germinating power of cotton seed required for planting, definite tests on this point were made by the Agricultural Department. Following on the recommendation of the Imperial Commissioner of Agriculture for the West Indies, in the regulations made under the Cotton Protection Ordinance No. 1 of 1922, which required that all cotton seed should be fumigated with carbon di-sulphide at the rate of 1 lb. carbon di-sulphide per 120 cubic feet of chamber or in proportion to such rate for the destruction of pink bollworm in any stage of growth, one germination test was made with cotton seed treated at the above rate. No. 2 experiment was carried out with seed treated twice, the second dose being ½ extra rate. Two plates of seed of each treatment were put in for germination on January 4, 1923, and the following results were obtained four days afterwards :—

	Control.	Once Fumigated.	Twice Fumigated.
Plate 1	75 per cent.	69 per cent.	79 per cent.
Plate 2	75 „ „	71 „ „	74 „ „

Another experiment on the germination power of cotton seed was made on January 16, 1923. In this instance the second fumigation was at the whole rate of the first fumigation, and the tests were made in quadruplicate. The following are the results :—

	Single fumigation.	Double fumigation.
Plate 1	72 per cent.	70 per cent.
Plate 2	66 „ „	62 „ „
Plate 3	60 „ „	58 „ „
Plate 4	76 „ „	62 „ „
Average	68 „ „	63 „ „

It will be seen that in both experiments the seed submitted to a double fumigation gave comparable germination results and this led to all the seed for planting in 1923 being fumigated with carbon di-sulphide by the double method as an extra measure of precaution. It might be added that this method of treating seed for planting did not entail additional outlay on the part of cotton growers inasmuch as every ginnery was compelled to erect a fumigatorium for handling the daily output of seed primarily to meet local regulations for the control of the pink bollworm and secondly in compliance with the requirements of the Barbados Government.—Report on the Agricultural Department, Montserrat, 1922-23 and 1923-24.