NOMURAEA RILEYI ATTACKING THE VELVETBEAN CATERPILLAR, *ANTICARSIA GEMMATALIS*[1], IN PARANÁ, BRAZIL—(*Note*).

Anticarsia gemmatalis Hübner and other lepidopterous larvae attacking soybeans are commonly infected by *Nomuraea rileyi* (Farlow), although there are no quantitative data on the occurrence of this fungus in Brazil. An experiment was therefore carried out to investigate the effect of *N. rileyi* on population levels of *A. gemmatalis* in soybeans.

A ½ ha plot of 'Hardee' soybeans sown 16 November 1973 in Ponta Grossa, Paraná was sampled. Thirty randomly-chosen plants were removed and inspected weekly from 4 December 1973 to 24 April 1974; twice-weekly sweep-sampling was done from 27 January to 1 May. The total number of *A. gemmatalis* larvae and the percentage infected with *N. rileyi* were noted.

Larvae of *A. gemmatalis* were found from the end of December until early April. They were most abundant at the end of the soybean flowering period, with means of 29 larvae per 30 plants (= 1 m), found by plant inspection on 13 February, and 19 per 100 m of row by sweeping on 7 February. The first larvae infected with *N. rileyi* were recorded on 13 February by both sampling methods. The proportion of infected larvae increased rapidly until by the pod-filling stage in early March, 94% of the larvae on inspected plants and 71% of those in the sweep samples showed disease symptoms. From 20 March until 3 April, after which no more larvae were seen, all larvae on inspected plants were infected with *N. rileyi*; in the sweep samples only 1 larva, which was infected, occurred after early March.

The total number of larvae per plant sampled by plant inspection was greater than the number found by sweeping. The percentage of infected larvae was 41.5% of the total of 142 sampled by plant inspection and 18% of the total of 96 sampled with the sweep net. Plant inspection was the most efficient of the 2 methods used, doubtless due to dead larvae adhering firmly to the plants and those on the lower part of the plant remaining untouched by the sweep net.

The mean temperature in the period from January to April was about 20°C, the relative humidity varying between 76 and 80%, thus approximating conditions considered ideal for the development of *N. rileyi.*

The percentage of infected larvae represent only those showing disease symptoms at the time of sampling; undoubtedly many larvae not showing symptoms were also infected, and had all the larvae been examined again at a later date, a higher percentage of infection would have been likely.

Although *N. rileyi,* because of its late appearance, is sometimes considered ineffective in controlling Lepidoptera, it appeared to be responsible in this experiment for maintaining populations of *A. gemmatalis* below the level at which insecticidal control is recommended.

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[1]Lepidoptera: Noctuidae.