prominent conidial scars, whereas those of *Stigmina* are persistant with often distinct annelations[1]. This fungus was earlier reported from infected papaya leaves from Brazil, Costa Rica. Cuba. Dominican Republic, Jamaica. Venzuela[2].

FIGS. 1–2. Symptoms of *Asperisporium* leaf spot of papaya on the lower and upper side respectively.

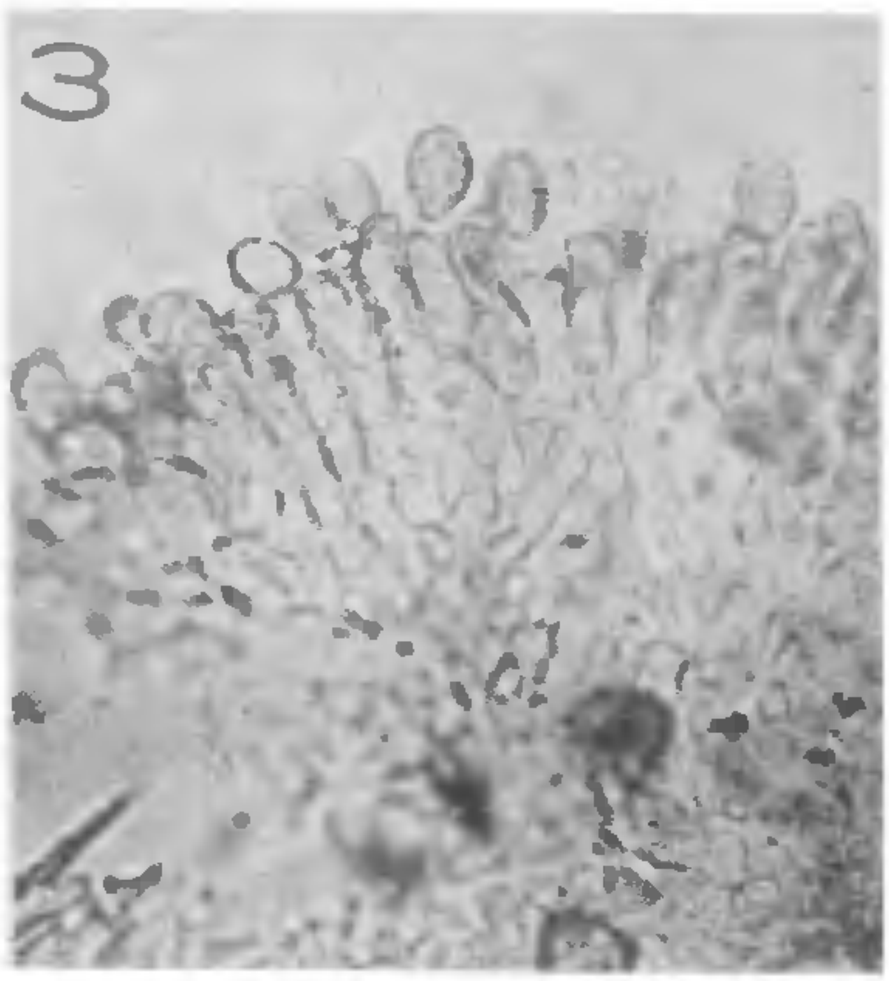

FIG. 3. Section through sporodochia of *Asperisporium* on papaya leaf showing conidiophores and developing conidia, × 975 Approx.

The authors are extremely grateful to Dr. G. S. Randhawa, Director, for his interest and facilities and to Dr. A. Johnston, Director, C. M. I., Kew, Surrey, England for his help in identifying the fungus which has been deposited under I. M. I. No. 21742.

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October 7, 1977.

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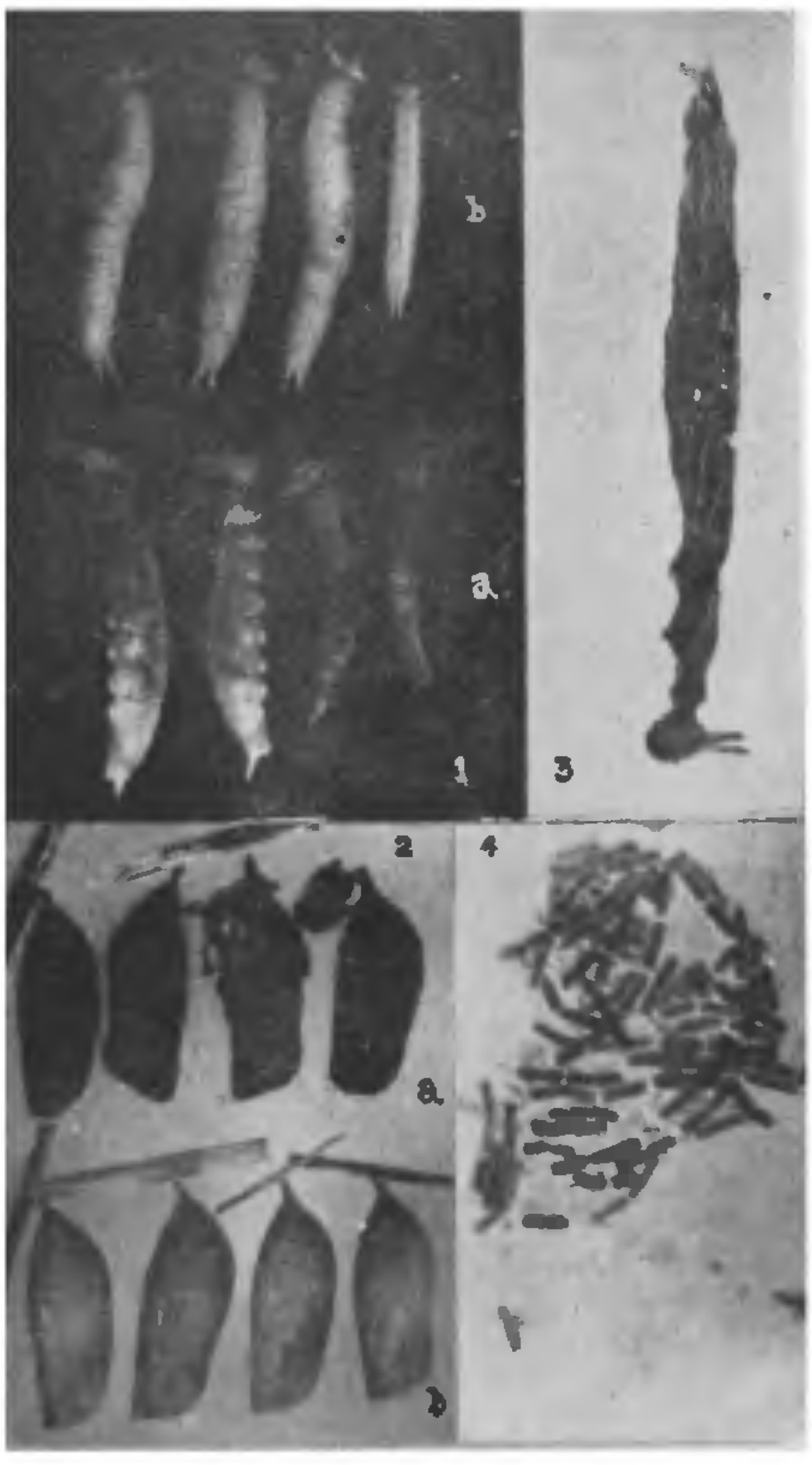
A NEW BACTERIAL DISEASE OF GREEN HORNED CATERPILLAR OF RICE

A BACTERIAL disease of rice green horned caterpillar, *Melanitis leda ismene* Cramer (=*Cydo leda* Linnaeus) was observed at the Central Rice Research Institute farm from September to November 1976. Dark brown coloured cadavers were found hanging from the leaves similar to the typical hanging position due to polyhedrosis. Pupae also changed to dark brown colour out of which adults did not emerge (Fig. 2*a*). The cadavers emitted a foul smell. Microscopic examination revealed the presence of bacteria in the body content. The cadavers were collected in sterile glass tubes. The bacterium was isolated on nutrient

agar medium and identified as *Bacillus subtilis* (Ehrenberg) Cohn (IMI No. B 7075 *a*).

Potted rice plants were sprayed with a bacterial suspension prepared from a 24 h old culture of the bacterium. Healthy laboratory reared larvae were released on these plants. Check treatments were sprayed with water and were kept separately to avoid contamination. The plants were caged with wire mesh cages. Observation was recorded on the disease development and mortality of the larvae.

The larvae stopped feeding after 6 h of release indicating the loss of appetite. Light-brown patches were noticed on the larval body after 12 h (Fig. 1*a*) which gradually increased in size. The entire body changed from light-brown to dark brown by the time larvae were dead. The excreta passed by the larvae was semiliquid. Mortality commenced after 18 h and by 24–36 h all the larvae were dead. The cadavers were either sticking to the leaf or hanging down by its hind legs at the anal end with head downwards and were flaccid. Sometimes the body content was dropped down and only wrinkled skin was observed (Fig. 3). Few larvae pupated after infection but the pupae were dark brown and adults did not emerge from such pupae. The bacterium was reisolated from the diseased larvae and pupae (Fig. 4).



FIGS. 1–4 Fig. 1. Infected (*a*) and healthy (*b*) larvae of *Melanitis lela ismene*. Fig. 2. Infected (*a*) and healthy (*b*) pupae. Fig. 3. An infected larva in hanging position, note the wrinkling of the skin. Fig. 4. The bacterium, *Bacillus subtilis*.

B. subtilis is widely distributed in soil and decomposing organic matter and is quite common as a laboratory contaminant. However, it has been reported to be associated with a number of healthy insects and ticks and pathogenic to the wax moth larvae, *Galleria mellonella* (Linn.) and the meal worm, *Tenebrio molitor* Linn., when artificially inoculated[3]. Masera[1] found the meal worm to be susceptible to outbreak of a septicemia caused by *B. subtilis* when the insects were sujected to high temperature. Rangaswami *et.al.*[2] reported the susceptibility of *Utetheisa pulchella* and *Euproctis* sp. to *B. subtilis*. This report constitutes the first record of *B. subtilis* being pathogenic to rice green horned catterpillar.

We are thankful to Dr. J. F. Bradbury of Commonwealth Mycological Institute, Kew, England, for identifying the bacterium and Head, Division of Entomology, Central Rice Research Institute, for providing facilities.

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ANTHOCYANOSIS VIRUS DISEASE OF COTTON—A NEW RECORD FOR INDIA

A DISEASE characterized by red or purplish-red discoloration on the leaves and retardation in the growth of the affected plants has been observed on American cotton (*Gossypium hirsutum* L.) lines, cultivars and hybrids *viz.* Buri Neetariless, Bikaneri Nerma, J-34,