The purified virus preparation was mounted on formvar coated copper grids and negatively stained with 1% phosphotungstic acid and examined in EM Philips 300. The electron micrographs (Fig. 2) revealed spherical virus particles measuring 30 nm in diameter.

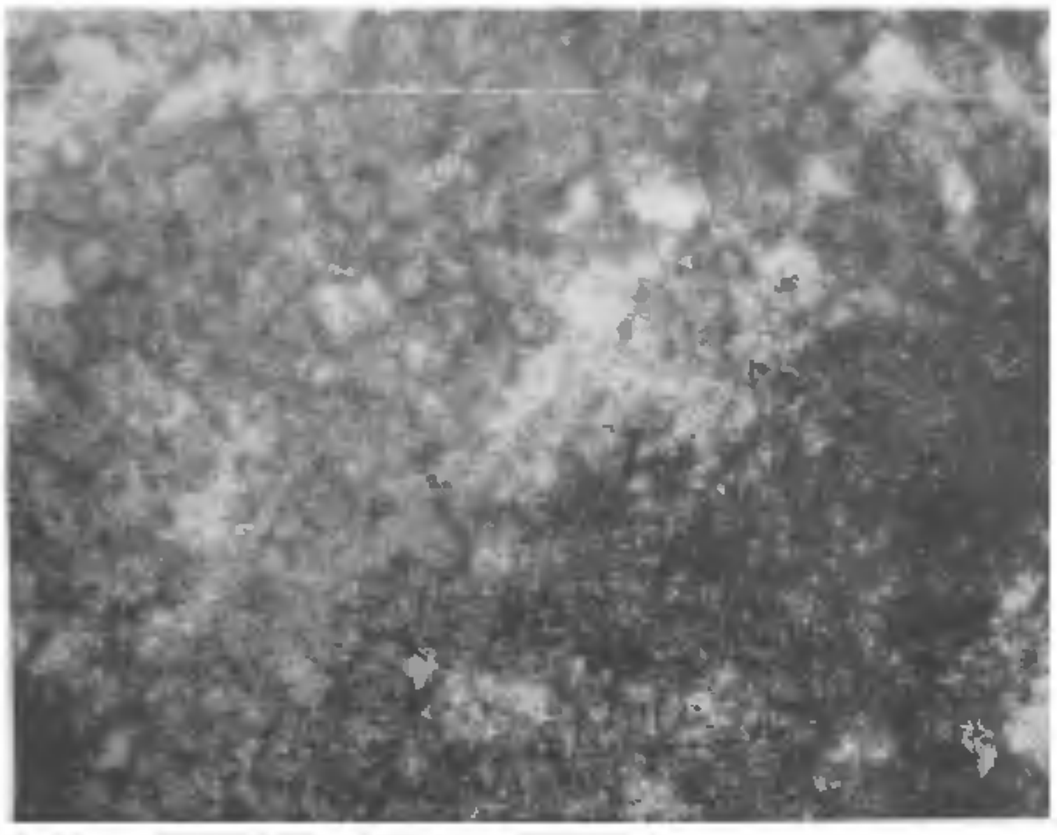

FIG. 2. Electron micrograph (PTA stained), × 168000.

The antiserum of the virus was prepared by giving three intramuscular weekly injections to a white albino rabbit with samples of purified virus preparations emulsified with Freund's adjuvant (Bacto) complete followed by an intravenous injection with 1½ ml of purified virus alone and bleeding the rabbit after 10 days following the last injection and separating the red blood cells by centrifugation at 7000 rpm for 15 minutes. The antiserum was specific and reacted with the diseased plant sap as well as purified virus preparations in precipitin tube tests but not with healthy plant sap. It had a titre of 1 : 16000.

The periwinkle mosaic virus reacted with an antiserum of a cucumber mosaic virus strain in precipitin tube tests suggesting its relationship with the latter. Van Regenmortel[6], Scott[5], Francki *et al*[2] and Dubey *et al*[1] reported the cucumber mosaic virus to be spherical with 30±1, 28–30, 28 and 29 nm in diameter respectively which is in close agreement with the size reported herein. Thus the physical properties, host range, particle morphology and serological relationships confirm the causal virus to belong to cucumo virus group.

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OCCURRENCE OF *ASPERISPORIUM* LEAF SPOT OF PAPAYA IN INDIA

DURING dry months of (January to March) 1977, leaf spot symptoms were noticed on papaya plants of var. Coorg Honey Dew at the Horticultural Experiment Station, Chethalli and at Horticultural farm, Hessaraghatta, Bangalore and also on many locally grown papaya plants at Kushalnagar, Coorg. Samples collected from Palani hills of Tamil Nadu on Co. 1 also revealed the occurrence of the same symptoms in the area. From the initial surveys, it appeared that the malady is prevalent only during dry and hot months of the year. The symptoms are characterised by the production of numerous black velvety spots on the lower region of the leaves, which are minute, round to irregular in shape measuring upto 1–5 mm in diam. (Fig. 1). The corresponding lesions on the opposite side of the lamina are necrotic, yellowish to white with pale margin (Fig. 2). The disease is more severe on lower and older leaves causing quick pallor and defoliation. The infection gradually spreads upwards and ultimately results in defoliation of the entire plant. Such plants may put forth new leaves during next monsoon. Infection occurs rarely on fruits.

Since this genus is newly recorded for India, a brief description of the fungus is given below.

Asperisporium caricae (Speg.) Maubl. (Fig. 3) 1913 *Lavoura* 16 : 212.

Sporodochia hypophyllous, dark brown to black, conidiophores 30–45 × 6–9 μ. Conidia ellipsoidal, pyriform or clavate, almost always one septate, hyaline to mid pale brown, verrucose, 14–25 × 2–9 μ. This fungus closely resembles species of the genus *Stigmina* but differs in having sympodial conidiogenous cells with

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.

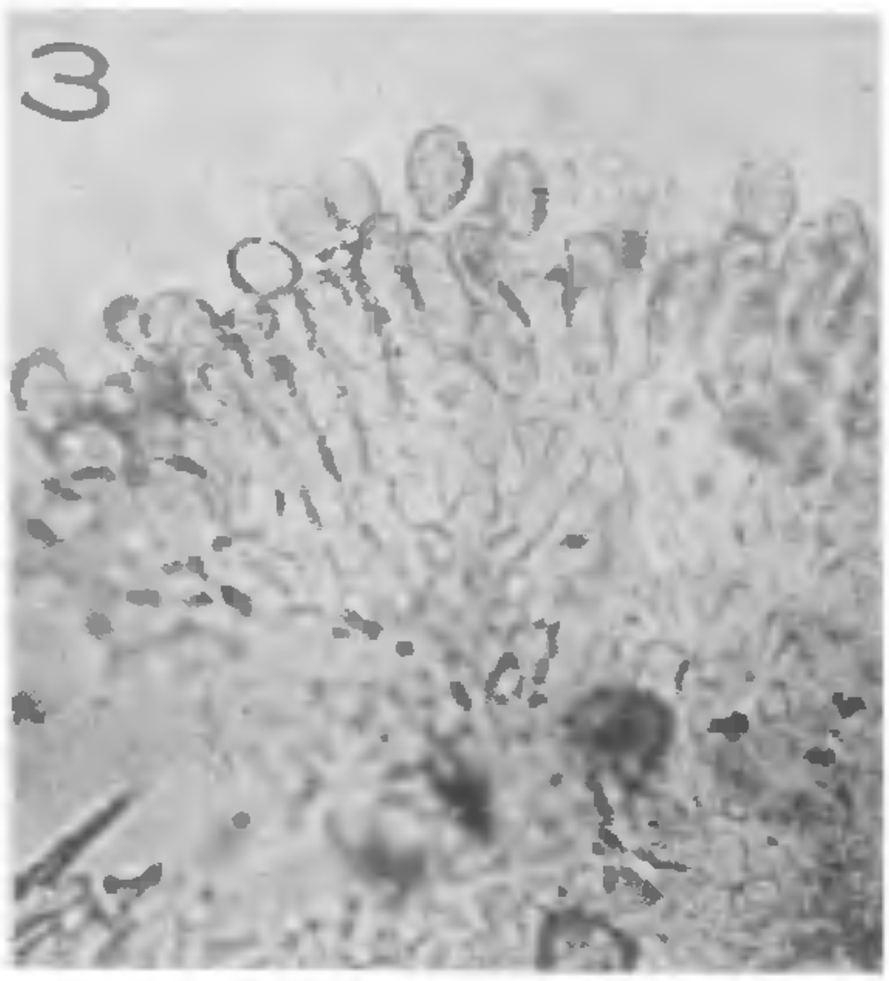

FIG. 3. Section through sporodochia of *Asperisporium* on papaya leaf showing conidiophores and developing conidia, × 975 Approx.

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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