FRUIT ROT OF *EMBLICA OFFICINALIS* GAERTN. CAUSED BY *PESTALOTIA CRUENTA* SYD. IN INDIA

'ANVALA' (*Emblica officinalis* Gaertn. syn. *Phyllanthus emblica* L.) occurs throughout tropical and subtropical India. Its fruits are the richest source of vitamin C and they have tremendous medicinal values in dysentery, jaundice, dyspepsia, scurvy, anaemia and inflammation of the eye.

A fruit-rot disease of *Emblica officinalis* was observed in the local market during November 1962. Consistent isolations from the diseased fruits invariably yielded a pathogenic species of *Pestalotia*. The spots on the fruits were mostly irregular and brown in colour. The disease usually starts as a brownish discolouration on the fruit surface, which develops slowly. Later the spots become mummy brown[6] and the skin around them develops light brown colouration. At a relatively later stage the infected region becomes covered with white fluffy aerial growth of the fungus. The internal part of the diseased fruit shows a dry, dark brown area. Isolations from it invariably yielded a species of *Pestalotia* showing the following characters :—

Hyphæ branched, septate, hyaline, 4-6 μ in thickness. Acervuli black and gregarious. Conidia fusiform, 5-celled, 16·5–24 $\times$ 5·5–7 μ. Three intermediate cells coloured, versicolorous ; upper two umber and lowest olivaceous. Exterior cells hyaline. Setulæ, usually 2-3, rarely 4, 10–18 μ long, divergent ; pedicels usually 4–6 μ long (Fig. 1). On the basis of the above morphological characters the fungus is identified as *Pestalotia cruenta* Syd. The culture has been deposited at the Commonwealth Mycological Institute, Kew, Surrey, England, as

No. 100476 and at Plant Pathological Laboratory of our Department.

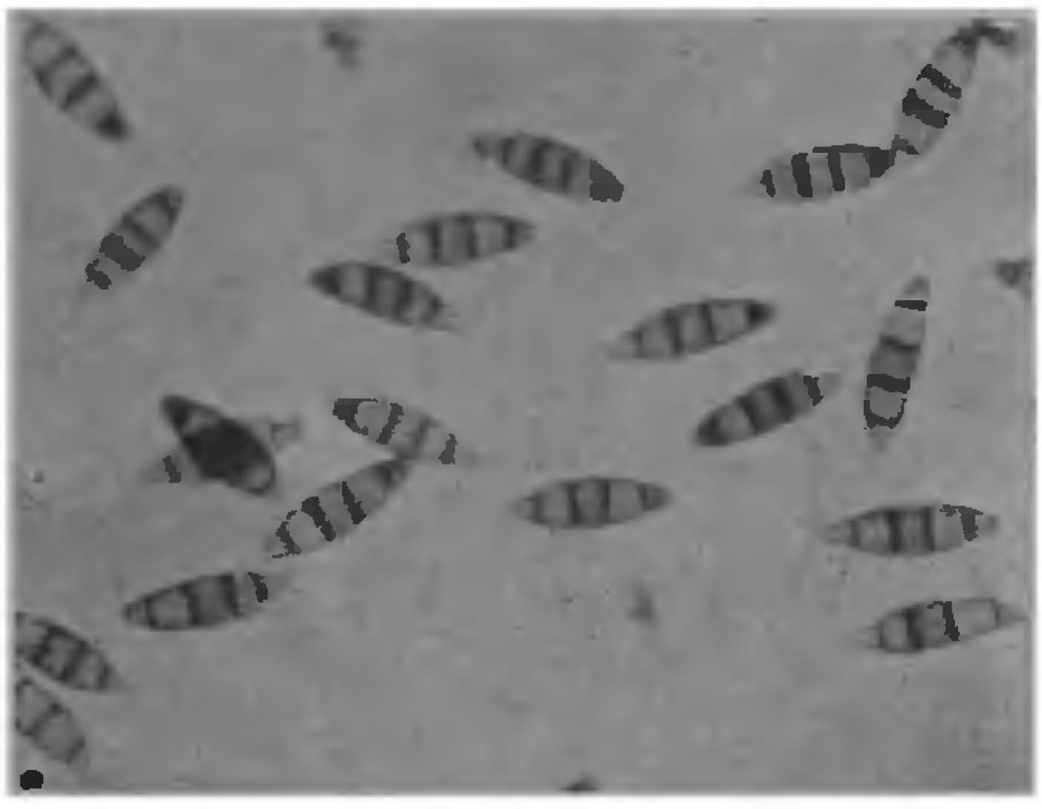

FIG. 1. Photomicrograph showing conidia of *Pestalotia cruenta*.

The organism could not infect healthy uninjured fruits but the pathogenicity of the isolate was established by inoculating healthy fruits by Granger and Horne's method[3] as well as by inoculating the fruits after injury.

Cross-inoculations were carried out on fruits of guava (*Psidium guajava* L.), banana (*Musa paradisiaca* L.), mango (*Mangifera indica* L.) and apple (*Pyrus malus* L.). Suitable controls were also maintained in all the cases. The organism could infect guavas only.

Pestalotia cruenta is rare in occurrence. Guba[4] (1960), p. 174) has mentioned that it has been isolated from living leaves of *Polygonatum lasianthum* Maxim, as well as from branches of *Prunus persica* (L.) Stokes from Japan and also from *Poincinia* (*Delonix*) from Philippine Islands. So far, *Pestalotia cruenta* has not been reported from India. Though several other species of *Pestalotia* are known to cause fruit rot of apple,[8] banana,[1] guava,[8] litchi,[2] mango,[7] and sapodilla,[5] etc., from various parts of the world, no species of this genus has been reported on fruits of *Emblica officinalis* from any part of the world, hence it appears to be a new host for this fungus.

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* Original not consulted.