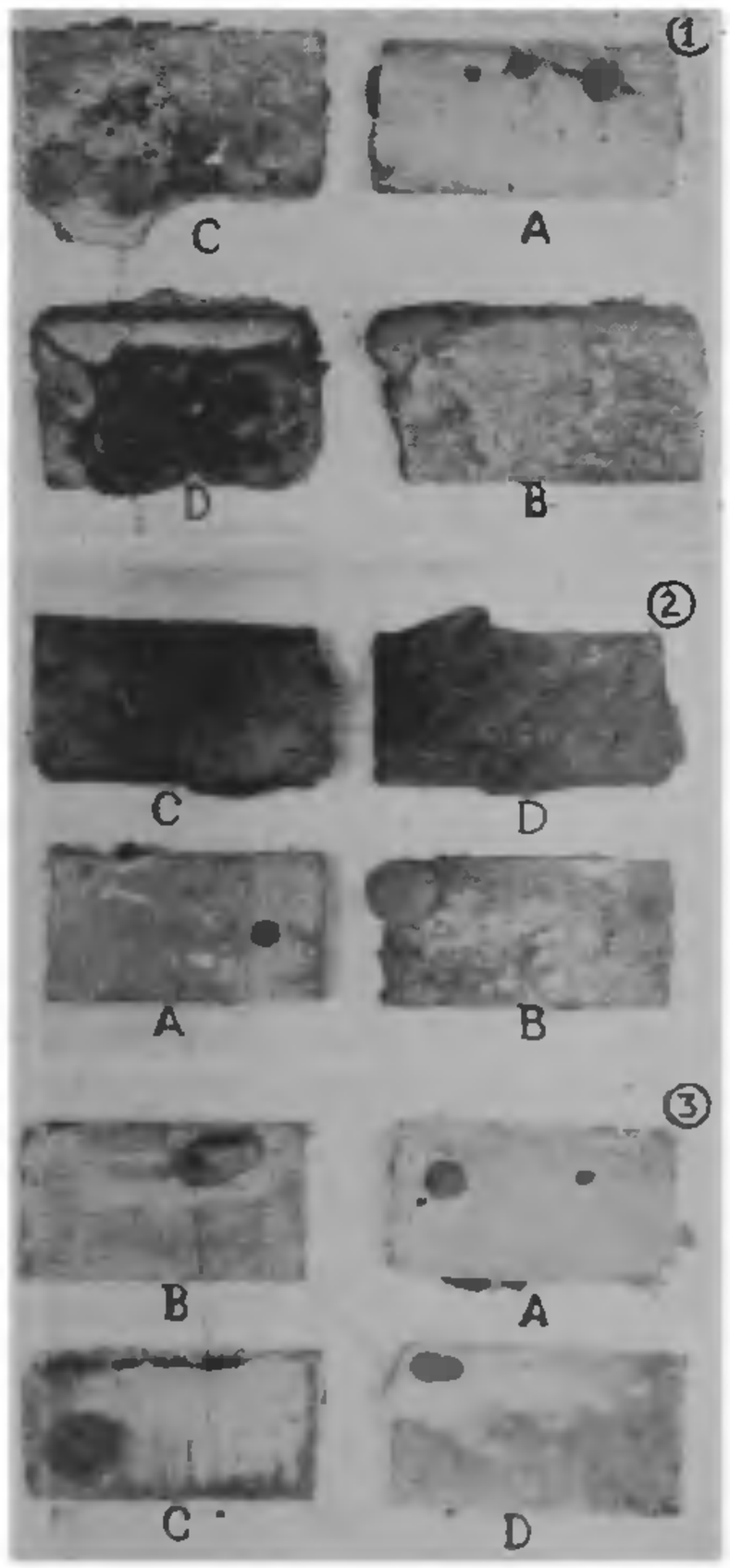
small knobs with deep brown colour. An experiment was then started to induce the three aforesaid strains of the test-fungus to fructify on wood blocks of their respective hosts. Sapwood blocks (2″ × 1″ × ⅓″) were sterilized, aseptically introduced into Kolle flasks four in each over a 30 days old culture of the respective strains of the test-fungus on 2% malt-agar slants. The wood-blocks were vigorously attacked on all sides by luxuriant growth of the mycelium of respective strains of *F. durissimus* within one month; after two months they were completely covered by thick, tough, brown coloured mat with a few mycelial 'knots' at places, on the surface of the wood blocks. Some of these 'knots' slowly increased in size and after four months looked like small 'knobs', more or less rounded in shape and dull yellow in colour. The flasks were then kept under diffused light and sterilized water was sprayed over the blocks at intervals. In about eight months the fruit bodies became hard, woody and dark brown in colour (Figs. 1–3). Sections through the hymenial surface revealed the presence of regular pore tubes with well developed basidia and basidiospores and their measurements agreed closely with those of the fruit-bodies occurring in nature. From the foregoing, it is clear that for the induction of typical fruit bodies of the three strains of *F. durissimus* the following conditions are essential: (i) sufficient supply of nutrients; (ii) moist atmosphere; (iii) favourable temperature and light. This is in conformity with the observations made earlier by Banerjee and Sinha[6].



FIGS. 1–3. Fig. 1. Fructifications of the strain of *Fomes durissimus* isolated from *Swietenia mahogani* at different stages of development in wood-block-cultures. Fig 2. Fructifications of the strain of *F. durissimus* isolated from *Casuarina equisetifolia* at different stages of development in wood-block-cultures. Fig. 3. Fructifications of the strain of *F. durissimus* isolated from *Mimusops elengi* at different stages of development in wood-block-cultures.

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A REPORT OF LEAF SPOT DISEASES ON SOME VEGETABLE, FODDER AND ORNAMENTAL PLANTS

A NUMBER of leaf spot infections were observed on vegetable, fodder and ornamental plants near Guntur, (India), during the rainy season and winter of 1974–75. Fruit rot of bhendi and leaf spots on *Amarantus viridis* L., *Ipomea sepiaria* Koen, *Nyctanthes arbortrists* L., *Chrysanthemum tinerariafolium* Vis, which are new records for India, are reported here.

The following procedure was adopted for all the diseases. The pathogenic fungus was isolated on Czapek–Dox agar medium from several infected regions. The pathogenecity of the fungus isolated from diseased areas was proved by spraying the healthy plants with spore suspension, prepared in sterillized water from one week old culture and covering the plants with moist polyethylene bags for three days at room temperature (27–31° C). Re-isolations yielded the original fungus in all the tests. The cultures were sent to CMI, England, for confirmation of the identity of the pathogens. The details of the disease symptoms and the characteristics of the pathogens concerned are given in Table 1. The fruit rot of bhendi and the leaf spot

TABLE I

Disease symptoms, cultural characters of the pathogens and their identity

Host	Disease	Symptoms	Cultural characters	Identity of the pathogen
Abelmoschus esculentus (L.) Moench (Bhendi)	Fruit rot	Blackening of tips of developing fruits resulting in progressive drying from tips to base; small black necrotic spots are present on the fruits	Mycelium green to bluish green, cottony, conidia in chains of 5–8, measure 38 μ–70 μ × 8 μ–14 μ.	*Alternaria* state of *Pleospora infectoria* Fuckel. (IMI 194871).
Amarantus viridis L.	Leaf spot	Small, brown to black necrotic lesions (3–4 mm)	Mycelium black, conidiophores neither septate, nor branched, conidia single celled, cylindrical with few vacuoles	*Cletotrichum* sp. Atypical isolate belonging to *C. dematium* (Pers. ex. Fr). Grove group (IMI 194869).
Ipomea sepiaria Koen	Leaf spot	Brown, circular necrotic lesions with chlorotic halo (0·5–1·0 cm). Necrotic zone showed typical concentric rings	Mycelium green to bluish green, cottony, conidia in chains of 6–8, measure 35 μ–70 μ 8 μ– 14 μ.	*Alternaria* state of *Pleospora infectoria* Fuckel. (IMI 194873).
Nyctanthes arbortristis L. (Har Singar).	Leaf spot	Large, oblong, brown, necrotic lesions with yellow borders (1–2 cm × 0·5–0·8 cm) both along the margin and on the lamina, necrotic lesions gradually increased in size covering entire lamina	Mycelium white turning to ash grey, condiophores hyaline bearing conidia apically, conidia unicellular, hyaline, cylindrical with few vacuoles, measure 9 μ–15 μ × 3 μ–4 μ, setose processes absent	Conidial stage of *Glomerella cingulata* (Stonem) Spauld and Schrenk (IMI 194870).
Chrysanthemum cinerariafolium Vis.	Leaf spot	Large, dark brown, necrotic lesions mostly along the margins. The disease spreads from basal to upper leaves	A pycnidial fungus, mycelium brown, pycnidia numerous, immersed, 15 μ–25 μ, pycnidiospores hyaline, oval, single celled, measure 4–5 μ 2–3 μ	*Phoma herbarum* Westend (IMI 194868). Since the pathogen is a soil fungus it is presumed that spores from soil may be splashed by rain to the basal leaves causing leaf spots, from which the disease spreads to upper leaves.

of Chrysanthemum had developed extensively and appear to be of economic importance to the cultivation of the respective hosts.

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ANATOMICAL STUDIES ON THE BULBILS OF COCONUT

BULBILS of different origin have been reported earlier in coconut[1-4]. However, the anatomy has not been investigated so far. The abnormal tissue described below initiated the present study.

A thick fleshy globular tissue (diameter = 3·8 cm) was observed within one of the leaf bases of a palm (Fig. 1), near the Calicut University campus. The material was preserved in FAA and the tissue showed cellular structure with many vascular bundles oriented irregularly and the parenchymatous cells were isodiametrical with the peripheral layers compressed (Fig. 2). The neighbouring leaf base fibres and tissues around this structure adhered to its surface. Internal tissue showed the presence of tanniferous cells distributed all over and the globular structure was devoid of