in height, 172–319 μ in length; ray cells thin walled, upright or square ray cells 10–14 μ in tangential height and 14–20 μ in radial length; procumbent ray cells 10–14 μ in tangential height. *Fibres* non-septate, thick walled, unstoried. *Ripple marks* present, due to storied arrangement of vessel members, parenchyma strands and xylem rays.

FIGS. 1–3. *Millettioxylon bengalensis* sp. nov. Fig. 1. Cross section of the fossil wood showing the nature and distribution of vessels, parenchyma and fibres, × 30. Fig. 2. Tangential section showing the nature of the rays and their storied arrangement with other elements, × 100. Fig. 3. Vestured intervessel pits, × 800.

In possessing banded parenchyma alternating with the fibre bands, vestured intervessel pits and ripple marks due to storied arrangement of the xylem rays, parenchyma strands and vessel-members, the fossil wood described here resembles with the modern genus *Millettia* of Leguminosae. Further, amongst the species of *Millettia*, the closest resemblance is shown by *Millettia pulchra* Kurz. The present fossil wood differs from *Millettioxylon indicum* (Awasthi,[1, 2]) and *Millettioxylon pongamiensis* (Prakash[3]; Roy and Ghosh[4]) in having predominantly thin parenchyma bands, homogeneous to heterogeneous xylem rays with 1 or 2 upright cells at one or both the ends, and in the size and distributional pattern of vessels. It is, therefore, being assigned to a new species, *Millettioxylon bengalensis*.

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A DISEASE OF MUSK MELON CAUSED BY *FUSARIUM SOLANI* (MART) SACC.

FUSARIUM wilt is one of the first recorded diseases of musk melon crop. Since early part of the twentieth century a wide variety of *Fusarium* spp., namely *F. reticulatum*[6], *F. niveum*[7], *F. solani F. graminium*, *F. semitectum*, *F. culmorum* and *F. moniliforme*[9], *F. oxysporum* f. sp. *melonis*[8] and *F. solani* f. sp. *cucurbitae*[4] have been isolated from diseased musk-melon plants from time to time by different workers. Present knowledge reveals that *F. oxysporum* f. sp. *melonis* and *F. solani* f. sp. *cucurbitae* are the two chief pathogens responsible for huge losses in this crop. In India also *F. oxysporum* f. sp. *melonis* was isolated from wilted melon plants[2].

The farmers at Jamuna river bed in Delhi region are unable to raise a healthy crop and suffer heavy losses due to severe stunting and wilting of musk melon plants at the flowering time, A *Fusarium*, later identified as *F. solani* has been found to be consistently associated with the wilted and otherwise unhealthy plants. The causal relationship has been confirmed by the usual Koch's postulates.

Repeated isolations from the infected plant roots yielded a fungus with dense, white mycelium. Microconidia developed abundantly in fresh isolates after 1–2 days from lateral conidiophores. Microconidiophores were elongated and sparsely branched. Each

branch usually terminated in a phialide like structure (Fig. 2). Microconidia were usually aseptate, sometimes one septate (Fig. 1) and measured 7·5–12·5 $\mu \times 3{\cdot}5$–5 μ. Development of macroconidia started on the third day in culture. These were slightly curved, inequilaterally fusoid, widest in the upper half, thick walled, 1–3 septate (Fig. 1) and

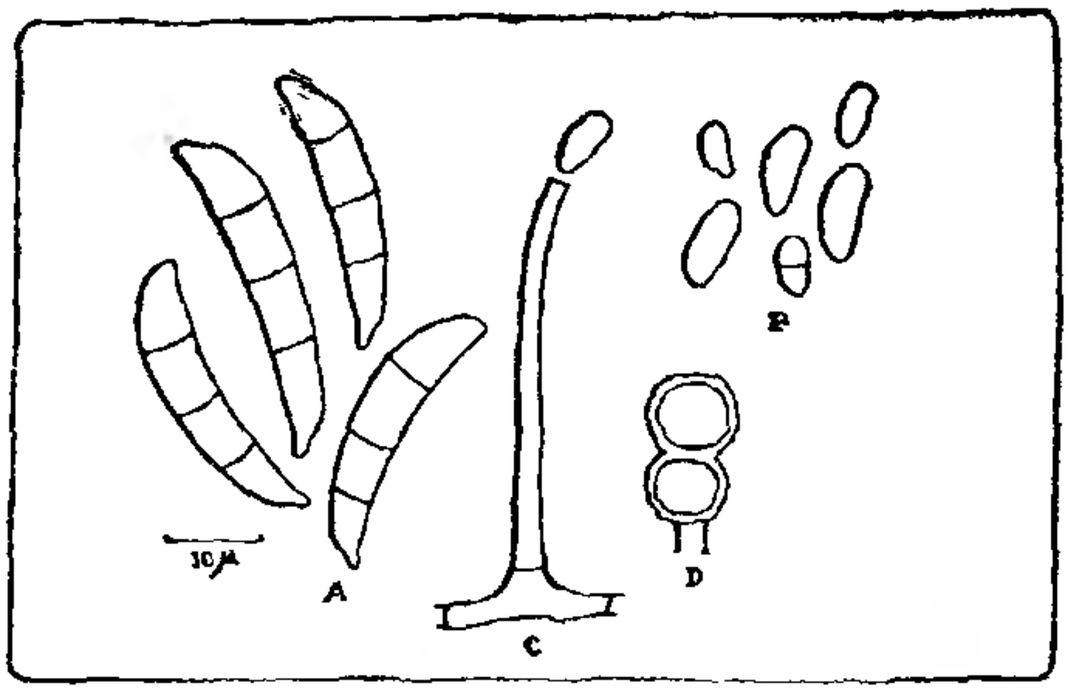

FIG. 1. *Fusarium solani* (Mart) Sacc: (A) Macroconidia; (B) Microconidia; (C) Microniodiophore; (D) Chlamydospore.

FIG. 2. Elongated Microconidiophore terminating in a phialide branching at the tip.

measured 32·5–35 $\mu \times 4{\cdot}2$ – 5·5 μ. Chlamydospores developed abundantly in old cultures. These were globose, rough walled, 7–9·5 μ and formed either terminally or on short lateral branches or were intercalary, sometimes in chains. With the help of these characters and following Booth's system of classification, the pathogen was identified as *Fusarium solani* (Mart) Sacc. The identification was confirmed further by Dr. C. Booth (CMI, Ac. No. 212851). The culture has been deposited at the Indian Type Culture Collection of Fungi, I.A.R.I. (A. No. 1984).

Although *F. solani* is generally known to be a root rotter[3], the present study was unique in noticing the absence of any rotting in the roots and a gradation of symptom expression was observed which was found to vary from a large proportion of stunted and thrifty plants to a considerably small proportion of completely wilted plants in muskmelon variety Pusa Sarbati. From our pathological observations[5] muskmelon did not appear to be the primary host of this pathogen[1]. This fungus was definitely not *F. solani* f. sp. *cucurbitae* as it failed to infect *Cucurbita moschata*, *C. pepo* and *C. maxima* which is an essential feature for confirming the identity of this forma specialis[4].

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YELLOW MOSAIC OF *AMMI MAJUS* L.— A NEW VIRUS DISEASE IN INDIA*

DURING 1976–78, *Ammi majus* L., a common medicinal herb grown at National Botanic Gardens, Lucknow, showed bright yellow mosaic often in the form of rings or line patterns on the leaves. This communication deals with mechanical transmission and host range studies of the pathogen.

Young infected leaves were crushed in pestle and mortar with an equal amount of 0·1 M phosphate buffer at pH 7·0. The slurry was squeezed through double folds of muslin cloth. Sap thus obtained was centrifuged at 5,000 rpm for 10 minutes and the