

chromosome chiasma frequency in the present report was the least among the three, the mean quadrivalents per cell, mean trivalents per cell and especially the mean univalents per cell were the highest. In pearl millet, it is well known that the chromosome association frequencies are interdependent and are also dependent on chiasma frequency<sup>9</sup> (multivalents being positively associated). Instead of normal more distal localization of chiasmata, non-distal sites would become active in the presence of Bs<sup>7, 11</sup>, which would enhance multivalent formation, with or without increase in chiasma frequency. On the whole, it appears, that Bs disturb chiasma localization, resulting in redistribution of chiasmata. This effect of Bs on A-chromosome chiasma pattern was found not to be concentrated to any one particular set but uniform over all seven sets of homologous chromosomes as per the result of Hall's test<sup>12</sup> ( $\chi^2 = 7.91$ ;  $p > 0.05$ ).

In the present tetraploid, 79 % of quadrivalents were simple chains or rings (types 11 and 17 respectively of Darlington<sup>13</sup>). The rest are complex types. This might be due to low A-chromosome chiasma frequency in this material. Thus, the role of B-chromosomes in plants from Mali on A-chromosome chiasma distribution independent of A-chromosome chiasma frequency reminds one of the earlier work on Bs in Sudanese cultivars of pearl millet<sup>7</sup>.

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## OCCURRENCE OF *PLEUROTUS CYSTIDIOSUS* IN INDIA

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*PLEUROSUS CYSTIDIOSUS* was described by Miller<sup>1</sup> based on an isolate from a trunk rot of a living red maple in Indiana, USA. Later Pollack and Miller<sup>2</sup> described the anamorph of this fungus as *Antromycopsis broussonetiae*. *P. cystidiosus* has also been reported to occur wildy on decaying wood in Taiwan and has been cultivated on a commercial scale and has become an industry of importance in that island<sup>3, 4</sup>. Because of its commercial importance and since it has not been reported from India so far a full description of the fungus is given below. The colour terminology used is that of Kornerup and Wancher<sup>5</sup>.

*Pleurotus cystidiosus* O. K. Miller, *Mycologia* 6: 881–893 (1969). Basidiocarp pleurotoid, fleshy. Pileus up to 9.5 cm broad, flabelliform, thick, with a slight depression on the upper surface at the point of attachment with the stipe; margin striate, grooved, incurved, brownish orange (5C4) at the centre, orange grey (5B2) on the margin. Stipe up to 1.5 cm long, laterally attached. Lamellae decurrent, broad, white to yellowish white (4A2), some forked at the tip, distant; lamellulae present. Spore print white. Spores 12.5–15.5 × 4.2–5.6  $\mu$ m, cylindrical, hyaline, smooth, without germ pore, inamyloid. Basidia 37.5–42 × 8.5–9.8  $\mu$ m, both bisporic and tetrasporic basidia present, sterigmata up to 9.8  $\mu$ m long. Cheilocystidia 18.2–22.4 × 8.4–9.8  $\mu$ m, clavate. Pleurocystidia 49–68.6 × 7–11.2  $\mu$ m, cylindric clavate, mucronate. Hymenophoral trama brownish in 10% KOH, consisting of subregularly arranged hyphae which measure up to 5.6  $\mu$ m in width; subhymenium well-developed, up to 33  $\mu$ m width, hyaline, consisting of inflated hyphae which are interwoven and irregularly arranged and measure 2.8–8.4  $\mu$ m in width. Context up to 3 mm thick, of

interwoven hyphae, 2.8–8.4  $\mu\text{m}$  in width. Pileus surface, an undifferentiated cutis; pileocystidia rarely observed, thin-walled, 30.8–36.4  $\times$  7–11.2  $\mu\text{m}$ , clavate. Stipe of interwoven hyphae, thin-walled, 4.2–7  $\mu\text{m}$  in width. All hyphae with clamp connections.

On dead wood of an unidentified tree, solitary, SRM Cardamom Estate, Senkaltheri, Tirunelveli, Tamilnadu, 13th February, 1979. Coll. K. Natarajan, Herb. MUBL. No. 2553. (figure 1).

In the same wood in which the basidiocarp of this fungus was growing, surrounding the stipe of the basidiocarp, large number of synnemata of *A. broussonetiae* were also found. A pure culture of the teleomorph was not obtained. A pure culture of the anamorph did not produce the teleomorph. *A. broussonetiae* was also shown to be the anamorph of *Pleurotus corticatus*<sup>6</sup>, *P. ostreatus*<sup>7</sup> and *P. gemmel-*

*larii*<sup>8</sup>. According to Kendrick and Watling<sup>9</sup> the report of Ghosh *et al*<sup>7</sup> that *A. broussonetiae* being the anamorph of *P. ostreatus* is an error.

We studied the Taiwan material of *P. cystidiosus* described by Peng<sup>3</sup> and found that our collection slightly differs from it in having a very well-developed subhymenium.

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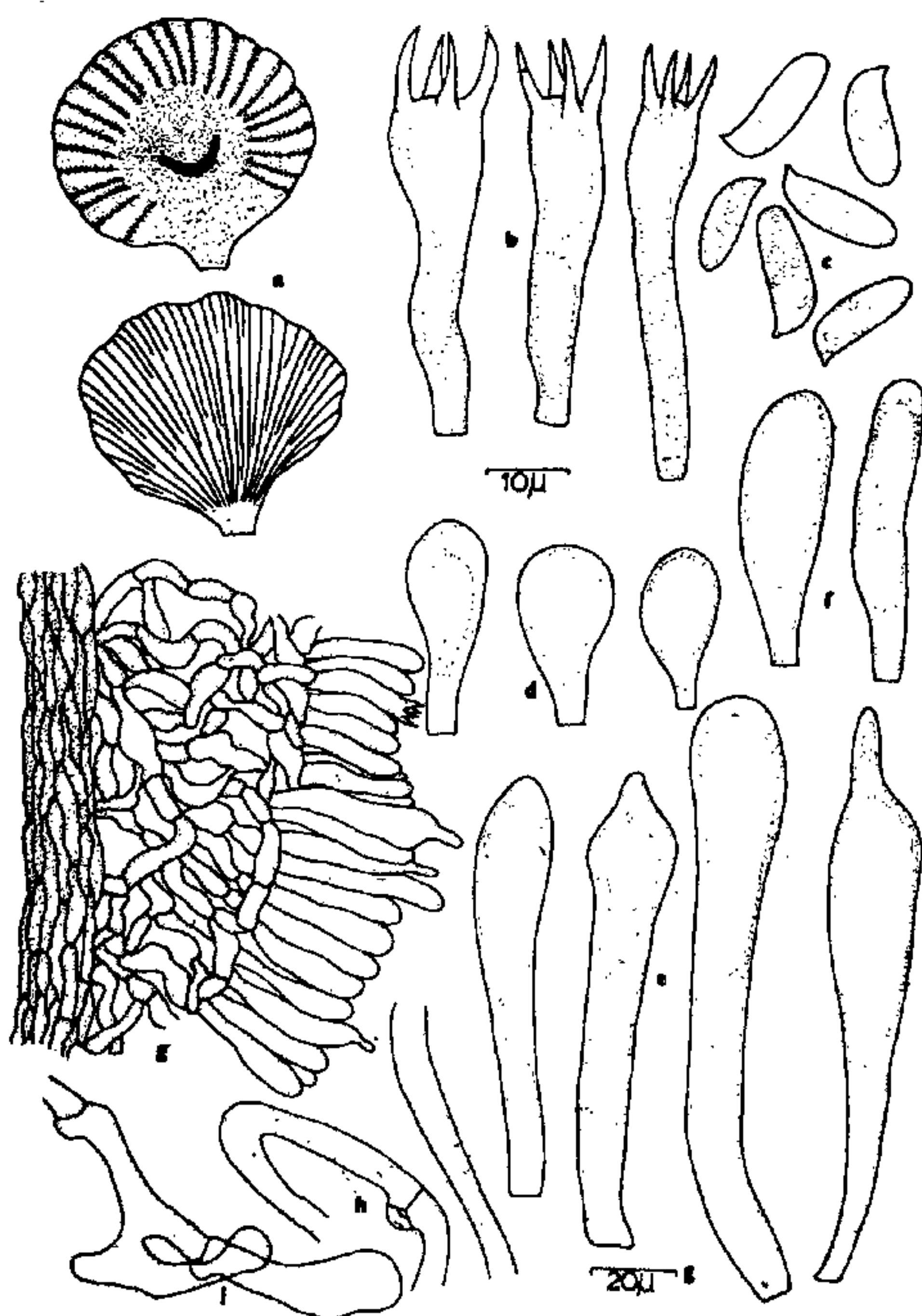
## ACTIVITY OF THIOLUTIN AGAINST CERTAIN SOIL BORNE PLANT PATHOGENS

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SEVERAL antifungal antibiotics like endomycin and thiolutin, have been isolated from strains of *Streptomyces albus*<sup>1,2</sup>. Thiolutin shows *in vitro* inhibitory effect against a number of fungi. An attempt was made to study the effect of thiolutin on the growth of *Fusarium solani*, *Rhizoctonia solani* and *Sclerotium rolfsii* *in vitro* and also its effect on rhizosphere microflora of soybean (*Glycine max*) infected with sclerotia of *Sclerotium rolfsii*.

Three soil-borne plant pathogens, *F. solani*, *R. solani* and *S. rolfsii* isolated from *Albizia*, *Quercus* and



**Figure 1.** a Habit, b Basidia, c Basidiospores, d Cheilocystidia, e Pleurocystidia, f Pileocystidia, g T.S. of gill showing the gill trama and well developed subhymenium, h tramal hyphae, i hypha of subhymenium.