

ON THE OCCURRENCE OF *SCLERODERMA CITRINUM* IN INDIA

DURING the course of our studies on the fungi in mycorrhizal association with *Pinus patula* the occurrence of *Scleroderma citrinum* in large numbers in the new pine plantations in Kodaikanal, Tamil Nadu, was observed. The fungus is described and illustrated below. Colour terminology used is that of Kornerup and Wansher¹.

Scleroderma citrinum Pers.

Sporocarp epigeal, globose to subglobose, 3.5 cm broad and 2.5 cm high, rarely pear shaped and up to 3.5 cm high and 3.2 cm broad, sessile, deeply and widely plicate beneath and with a dense fascicle of interwoven mycelial filaments at the base. Peridium in young specimens light yellow (2A5) to yellow (2A7) and in older specimens it is pale yellow (3A3) with violet brown (11F4) patches. Peridium white in section and when dry rigid, up to 2 mm thick. At maturity peridium opens by irregular cracks at its apex. Gleba when young white and at maturity breaks down into olive brown spores. The young basidium bears 4 sterigmata (up to 2.8 μ long). Basidia clavate with a narrow stalk, 28.0–49.0 \times 9.8–15.4 μ . Basidiospores globose, dark yellow brown, spinose and reticulate and 9.8–14.0 μ in diameter. The reticulation is very distinct in 10% potassium hydroxide solution.

Habitat: In large groups in the new pine plantation of *Pinus patula*, Kodaikanal, Tamil Nadu. 12–8–1978. Coll. K. Natarajan,

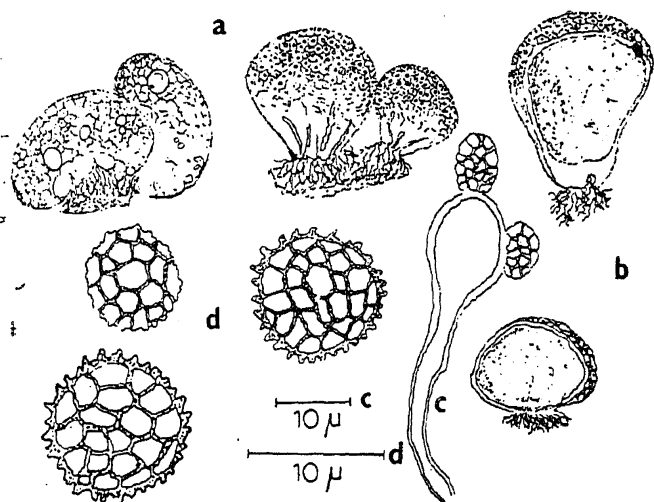


FIG. 1. (a) Sporocarp entire — Natural size, (b) Sporocarp section—Natural size; (c) Basidium; (d) Basidiospores.

S. citrinum is the most common *Scleroderma* in acid humus woodlands in Europe and North America. According to Guzman² this species is a facultative mycorrhiza former and has been introduced with pines in many parts of the world. The occurrence

of this species in large numbers in *Pinus patula* plantations indicate that it is probably a mycorrhizal former with this plant. *S. aurantium*, which is a synonym of *S. citrinum*, has been shown to be in mycorrhizal association with many species of *Pinus*, but *Pinus patula* is not one among them³. *S. aurantium* has been reported from India earlier by Butler and Bisby⁴ based on a collection reported as *S. vulgare* by Hennings⁵. But Sultan Ahmad⁶ considered that the determination of this particular collection as *S. aurantium* is doubtful and identified it as *S. cepa*.

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A CASE OF TRISOMY IN *LATHYRUS ODORATUS* L.

THE garden varieties of sweet pea have arisen from a single diploid ($2n = 14$) species, *Lathyrus odoratus* L. Selection of mutants and their further crossing resulted in recombination and release of variability within the diploid stock¹.

During a systematic karyotypic study of about 10 cultivars of *Lathyrus odoratus*, a case of trisomy was discovered for the first time. The extra chromosome has been found to belong to the smallest (7th) pair. Karyotypic formulae of normal diploid ($2n = 6m + 8sm$) and trisomic ($2n + 1 = 1M + 6m + 8sm$) following Levan *et al.*² exactly coincide except that the extra chromosome has been found to be with median centromere (M, 'r' index 1.0) (Figs. 1–3).

The trisomic had delayed germination and the seedling was so weak in vegetative growth that the unfavourable season ensued before any flowering could take place. The detrimental effect of extra chromosome on phenotypic development is expected of a basic diploid³. The absence of trisomic for any chromosome other than the seventh (smallest) pair