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Wild Neurospora isolated from soil.

We earlier reported a technique for isolating Neurospora from soil (Maheshwari ond Antony 1974 J. Gen. Microbiol. 81: 505). Using this technique we have recently irolated Neurospora from 18 out of 25 soil sampler from cultivated fields of arecanut, cardamon, coconut, coffee, poddy, sugarcane and also from natural forests of teak and other species in Southern India. The localities sampled were mostly southwest of Bangalore along a

250km radius ond some placer in Tamil Nod" and Kerala. The sites sampled were at least I-2km apart and most were IO-15 km apart.

Of the eighteen isolates in pure culture ond purified by single-spore isolation, fifteen were identified as N. intermedio bored on the viability of ascospores produced following crosses with tester strains (FGSC #1766 and #1767) or with wild isolates which were identified as N. intermedia. One isolate each from soil from an arecanut ond a coffee field behaved as N. sitophila in crosses with tester strains (FGSC #2216 and #2217). N. sitophila was also isolated from a sample of soil collected in Port Blair, Andomon Islands in the Boy of Bengal. It should be mentioned that our earlier isolates designated as N. crassa (Maheshwari and Antony, 1974) have now been identified as N. intermedio. We had previously not token into account the fact that most of the ascospores were inviable that were produced in crosses to N. crassa testers.

Since our isolation procedure was bored on heat-treatment which activates dormant ascospores and kills conidia, this study suggests that ascospores ore prevalent in soil. Both mating types were recovered with approximately equal frequency from some soil sampler.

The isolates differed in growth characteristics, pigmentation ond fertility. In our experience crosses with these isolates were uniformly better on Westergoord and Mitchell's medium with filter paper (Whatman #3) rather than sucrose as the carbon source. None of the isolates grew above 42°C in minimal or in rich medium. This study and the collections mode by Perkins (Perkins, Turner and Barry 1976 Evolution 30: 281) establish that Southern India is rich in Neurosporas.

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