

Wild Neurospora isolated from soil.

250km radius and some places in Tamil Nadu and Kerala. The sites sampled were at least 1-2km apart and most were 10-15 km apart.

Of the eighteen isolates in pure culture and purified by single-spore isolation, fifteen were identified as N. intermedia based 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 and 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, Andaman Islands in the Bay of Bengal. It should be mentioned that our earlier isolates designated as N. crassa (Maheshwari and Antony, 1974) have now been identified as N. intermedia. We had previously not taken 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 based on heat-treatment which activates dormant ascospores and kills conidia, this study suggests that ascospores are prevalent in soil. Both mating types were recovered with approximately equal frequency from some soil sampler.

The isolates differed in growth characteristics, pigmentation and fertility. In our experience crosses with these isolates were uniformly better on Westergaard 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 made by Perkins (Perkins, Turner and Barry 1976 Evolution 30: 281) establish that Southern India is rich in Neurosporas.

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