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VESICULAR ARBUSCULAR MYCORRHIZAE ASSOCIATED WITH COCONUT PALMS

V.K.SOSAMMA, A.T.SOBHA, S.RACHEL & ROHINI IYER*

Division of Nematology, Central Plantation Crops Research Institute, Regional Station, Kayangulam, Krishnapuram -690 533, Kerala, India.

The presence of Vesicular Arbuscular Mycorrhizal association has been reported by many workers. The observation that there is natural association of VA mycorrhizae in different plants is of significance because of the known benefit of such an association in enhancing the uptake of certain nutrients, maintenance of the soil microbiological equilibrium, elaboration of growth stimulating substances and antagonism towards the plant pathogens. In comparison with other crops very little work has been done on mycorrhizae associated with coconut. Lily(1975) reported the occurrence of vesicular arbuscular mycorrhizal fungus Endogone fasciculata in coconut roots. Endomycorrhizal spores of Gigaspora gilmorei, G. gigantea, Glomus fasciculatus, G. fuscianus, G. macrocarpus, G. mosseae, G. pallidus and Sclerocystis rubiformis have been recovered from the root zone of coconut (Ramesh and Rohini Iyer, 1979; Anonymous, 1983; Ramesh et al., 1984).

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* Division of Plant Pathology, Central Plantation Crops Research Institute, Kasaragod - 671 124, Kerala, India.

Rohini Iyer

On the basis of the above evidences, investigations have been undertaken to survey, isolate and identify various spore forming mycorrhizae in coconut. Samples were collected at a distance of 100 cm/ away from the bole of the palm from a depth of 25-100 cm/ Spores were isolated from the soil using wet sieving and decanting method (Gerdemann and Nicolson, 1963). The spores were isolated and identified based on revision of ~~Trappe~~ Trappe's synoptic key to genera of Endogonaceae by Borch, S.M.

The endomycorrhizal spores found associated with coconut palm in the survey are Acaulospora birsticulata, A. laevis, A. trappei, Gigaspora auriloba, G. coralloidea, G. gilmorei, G. margarita, G. nigra, G. pellucida, Glomus fasciculatus, G. fuscianum, G. invermaium, G. macrocarpum, G. microcarpum, G. pallidum, Sclerocystis coremioides, S. microcarpus, S. rubiformis and S. sinuosa.

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