B8 OCCURRENCE OF VESICULAR - ARBUSCULAR MYCORRHIZA IN RICE

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Studies on mycorrhizal fungi associated with crop plants attracted more attention with the realization of their benefitial role on the nutrition of the host plant. Rice was first reported to be nonmycorrhizal[1]. Later field inoculations succeeded in showing the favourable effect of mycorrhizal on rice growth and yield[2]. Though rice is a major economic crop in Sri Lanka no investigation has been made on its mycorrhizal association.

Root samples collected from rice growing under moderately wet conditions were stained and examined microscopically for Endogone. A mycorrhizal fungi was found to have infected the rice roots. Young roots were either infected or beginning to form mycorrhiza. The incidence declined with the maturity of the crop. Few hyphae were growing over the root surface. But the hyphae which penetrated the epidermis and entered the root cortex had colonized extensively both intra and intercellularly. Characteristic arbuscules and intercellular

vesicles of different sizes were visible. The shapes of the vesicles varied from oval to spherical. Large thick-walled spherical or nearly sphericalspores which remained attached to the extended hyphe were born singly as well as externally.

It is evident that vesicular - arbuscular mycorrhiza is naturally existing with rice cultivation. From the spore characters this mycorrhizal fungi could be identified as a *G lomus* species.

References

1. Gerdemann, J.W. (1968) Vesicular - arbuscular mycorrhiza and plant growth. *Ann.Rev. phyopathology* (6) 397 - 418.

2. Iqbal, S.H. *et al* (1978) The effect of vesicular - arbuscular mycorrhizal associations on the growth of rice *(Oryza sativa)* under field conditions.*Biologia* 24 357 - 366