B 265

Field comparison of tissue cultured Banana (*Musa spp*.) plants with conventional suckers

Owing to polyploidy and parthenocarpy all commercial banana cultivars do not set fertile seeds. Thus, it is propagated vegetatively by using young suckers. With the expansion of the cultivation, healthy planting material has always being in short supply. This has been aggravated by the rapid spread of virus diseases in major growing areas. Invitro culture can be an effectively used to produce virus free planting material in large numbers. This study was carried out to examine how invitro-cultured plants perform in the field when compared with sukers.

Tissue cultured plants and suckers of five-banana cultivars i.e., Ambul, William hybrid, Kolikuttu, Anamalu and Binkehel were field planted in IL, region in randomized complete block design with three replications. Crop was managed according to the Agriculture Department recommendations.

At 06 months after planting, pseudo stem girth and number of leaves per plant were not different between tissue-cultured plants and suckers in those varieties. Except ambul variety, pseudo stem height was also not different between the two types of planting material. Total yield or fruit length between varieties or between tissue cultured plants and suckers were also not different. However, variety ambul ends to show better

performance in this IL, region and gave11.1 that in normal suckers and 8.3tha in tissuer cultured plants. But it was not different. Differences were observed in the number of hands per bunch, number of fruits per bunch, and the average fruit girth between cultiars, but not between tissue cultured plants and normal suckers. It can be concluded that the performances of tissue cultured plants in the tested varieties were not different form the conventional suckers.