A PRELIMINARY STUDY ON VEGETATIVE PROPAGATION OF SALT-TOLERANT TREE SPECIES

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This experiment was undertaken primarily to study the influence of salinity on root formation of curttings, taken from four promising salt-tolerant species, namely *Acacia leucophioea* (Katu andara), *Cassia autriculata* (Ranawara), *Thespesia populnea* (Suriya), and *Salvadora persica* (Malittha).

Here, semi hard wood cuttings of each species were planted in poly bags filled with soil, and arranged RCBD with four replicates. Saline solutions (i.e., 2, 4, 8 and 12 dS/m) were applied at the rate of 100,l per poly bag, once in two days up to the period of one month. Sea water (40 dS/m) diluted to give varying salinity levels and normal water (0.13 dS/m) was used as the control. The experiment was conducted, during the period of March,-June 2000, at the Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, Sri Lanka.

The results of the study indicated that any of four species did not form roots, even in the control. Thus, experiment was repeated, and carried out up to the period of two months. At the end of two months, Suriya had formed several roots and other 3 species did not form roots at all. Highest rooting percentage and highest root elongation were obtained in low salinity levels (<4 dS/m). However, number of roots and lengths of roots were decreased as the level of salinity increased (> 8dS/m)

According to this study, rooting is considered as a very difficult task in cuttings of Katu Andara, Ranawara and Malittha. But for Suriya it can be considered as successful method of propagation.