D-68: Relative growth performance of some tree species in the intermediate zone in Embilipitiya

D M S H K Ranasinghe, S Munasinghe
(Forestry Unit, Univ of Sri Jayewardenepura, Nugegoda)

The growth performance of some tree species in 2 sites (Chandrikawewa and Uda Walawe in Embilipitiya) in the intermediate zone were evaluated for their potential use in forestry activities with people's participation. Fourteen species were selected according to the availability of planting material and assessed for survival and growth over a period of 8 months. Test plots were arranged in a Randomized Block Design. At the end of 8 months since planting significant differences ($P < 0.05$) were observed in survival, total height and diameter among these tree species.

The survival percentage of *Acacia auriculiformis, Azadirachta indica, Pinus caribaea, Adinandra pavonina, Bauhinia racemosa, Terminalia arjuna, Cassia fistula, Artocarpus heterophylla, Berrya cordifolia, Chloroxylon sweitenia, Tamarindus indica, Ferronia limonia* and *Spathodia campanulata* was 100%, while that of *Artocarpus incisa* was 25%. The highest height was recorded in *A. auriculiformis* (215.3 cm) while the lowest was recorded in *C. fistula* (42.4 cm). The height growth decreased in the order: *A. auriculiformis* > *P. caribaea* > *A. indica* > *T. arjuna* > *A. pavonina* > *B. racemosa* > *S. campanulata* > *C. fistula*.

The highest girth at a fixed point near the root collar was recorded in *S. campanulata* (4.0 cm) while the lowest was recorded in *A. incisa* (0.3cm).

The girth decreased in the order; *S. campanulata* > *A. auriculiformis* > *A. indica* > *B. racemosa* > *T. arjuna* > *A. pavonina* > *B. racemosa* and *S campanulata*. They can be recommended for use in reforestation and afforestation programmes with people's participation e.g. in homegardens in localities with climate similar to that of Embilipitiya in Sri Lanka.