

Abstract

Acacia mangium Willd. and *A.auriculiformis* A. Cunn. ex Benth. are two fast-growing tree species native to Australia, Pupa New Guinea and Irian Jaya, Indonesia. Both species were widely introduced and planted through out different tropical countries to provide additional sources for timber and other non-wood products to supplement the production of local species. *Acacia mangium* and *A.auriculiformis* were reputed to perform better than expected in their new introduction as exotics.

The objective of this study was to evaluate the performance of *A.mangium* and *A.auriculiformis* with organic and inorganic fertilizers, viz. Chicken Manure (CHM) and NPK. Soil analysis was conducted to assess the nutrients status of the soil of the potting medium.

Seedlings were fertilized with 10 g and 8 g of CHM and NPK, respectively. Plant height, diameter at root collar, the number of leaves and the number of branches were measured during 12 weeks.

Results showed significant differences ($p < 0.001$) between species for all measured growth characteristics. However, there were significant differences between treatments in root collar diameter ($p < 0.001$) and number of leaves ($p < 0.01$), but not for height and number of branches. The interaction of species x treatment was significant ($p < 0.05$) only for height growth and number of leaves.

The effect of CHM was significantly ($p < 0.05$) better than NPK for height growth, root collar diameter and number of branches, but not for number of leaves. However, it showed a significant difference ($p < 0.05$) with the control only for root collar diameter.

Generally, *A. auriculiformis* showed a faster growth rate and seemed to be better adapted than *A. mangium*.