

FERTILISER APPLICATION ON THE INITIAL ESTABLISHMENT OF
ACACIA AURICULIFORMIS AND BERRYA CORDIFOLIA

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Survival and initial establishment of 8 months old Acacia auriculiformis and Berrya cordifolia grown on soil obtained from an abandoned chanaed hill top (pH = 3.79; organic matter = 1.41%) and relatively fertile previously uncropped hill top (pH = 5.69; organic matter = 2.89%) respectively in Ratnapura Division were studied in a green house in the University of Sri Jayewardenepura.

Sixteen factorial treatments comprising of four levels each of nitrogen (0, 30, 60 and 90 kg/ha) applied as urea and phosphorus (0, 10, 20 and 30 kg/ha) applied as single super phosphate replicated 3 times with basal dose of 10 kg/ha of muriate of potash was incorporated into the soil prior to potting of the seedlings.

Percentage survival of Berrya cordifolia was higher (50%) than that of Acacia auriculiformis in all the fertiliser levels. Significant differences (p,0.05) were observed between the fertiliser levels used where a decrease of survival was observed with the increase of nitrogen level beyond N30 in both species. The level of phosphorus alone in the medium did not show any significant effect but when coupled with nitrogen levels beyond N30 caused a decline in percentage survival. The percentage survival was 0 in treatments; N60P0, N90P0, N60P10, N90P10, N60P20, N90P20, N30P30, N60P30 and N90P30 in Acacia auriculiformis and N60P0, N90P0, N90P10, N60P20, N90P20, N90P30 in Berrya cordifolia. N30P30 was the best in both A. auriculiformis and Berrya cordifolia.

- References: Prasad, K.G., Gupta, G.N., Singh, J. and Mohan, S. (1985) Effect of fertiliser application on biomass production from two years old Eucalyptus grandis plantations. Journal of Tropical Forestry, Vol. i (IV). 301-308.
- Krishnamurthy and C. Vijayan (1986) Response of Eucalyptus 'hybrid' (mysore gum) to major nutrient elements. In: Eucalypts in India; Past, Present and Future, (eds. J.K. Sharma, S.T.S. Nair, K. Kedhanarth and S. Kondus), Kerala Forest Research Institute, India: pp. 126-131.
- Sharma, S.K., Prasad, K.G. and Gupta, G.N. (1986) Fertiliser application and growth of Eucalyptus grandis on a severely truncated soil. In: Eucalypts in India; Past, Present and Future, (eds. J.K. Sharma, S.T.S. Nair, K. Kedhanarth and S. Kondus), Kerala Forest Research Institute, India: pp. 132-138.