

**INVESTIGATIONS ON SUITABLE TREE SPECIES FOR THE REFORESTATION OF  
DEGRADED LAND AREAS IN CENTRAL AMAZONIA**

**INVESTIGAÇÕES SOBRE ESPÉCIES ADEQUADAS PARA O REFLORESTAMENTO DE  
ÁREAS DEGRADADAS NA AMAZÔNIA CENTRAL**

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ENV 42 - 1

In this SHIFT - PROJECT- eight native tree species of Central Amazonia (*Swietenia macrophylla* Krug., *Carapa guianensis* Aubl., *Hevea brasiliensis* (Willd.) Muell. Arg., *Schizolobium amazonicum* Ducke, *Cedrela odorata* L., *Dipterix odorata* Willd., *Hymenaea courbaril* L., *Tabebuia* sp.), which are accepted for timber production, are investigated with regard to their suitability for agroforestry systems. Therefore exogenous influences on tree growth and wood formation of these species are investigated on three-year-old experimental plots laid out by the EMBRAPA-CPAA/Manaus (Dr. Gasparotto) and the Institute for Applied Botany/Hamburg University (Prof. Lieberei/Dr. Preisinger, comp. ENV.23) and additional plots with the same tree species laid out by EMBRAPA-CPAA/Manaus (E.M. Neves), with special reference to the mineral element supply of the plants. In these investigations the total tree biomass and the total mineral element content (N, P, S, K, Ca, Mg, Al, #) of the trees is quantified in one year intervals. Furthermore the intra-annual variation of tree growth and wood formation is studied in relation to meteorological conditions and changes in the mineral element supply of the soil (comp. ENV: 45, Prof. Dr. Zech, Dr. G. Schroth). Data of trees grown in a monoculture system (system 4, comp. ENV.23, ENV. 45). From these studies more information about the exogenous influences on tree growth and the sustainability of the mineral element supply of the trees on this forest site are expected. For the experimental period from January 1, 1995 to June 30, 1995, data are presented for the biomass production and exogenous influences on tree growth of the investigated species under field conditions.

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