

**RECUITIVATION OF ABANDONED MONOCULTURE AREAS IN THE AMAZON: BASIC CONCEPT OF THE FIELD EXPERIMENT AND SUMMARY OF RESULTS**

**RECUPERAÇÃO DE ÁREAS DE MONOCULTIVO ABANDONADAS NA AMAZÔNIA: CONCEPÇÃO BÁSICA DO EXPERIMENTO DE CAMPO E RESUMO DOS RESULTADOS PRELIMINARES**

**Preisinger, H. , Gasparotto, L. , Feldmann, F. & Lieberei, R.**

ENV 23 - 5

The project concerns an experiment in recultivating a fallow rubber plantation of 19 ha by establishing mixed plantations of selected crops, mainly trees. One of the main objectives is to determine the ecological conditions necessary for a sustainable land use, by testing different crop combinations and management types, two fertilization levels (30% and 100% of the recommended fertilizer dose) and inoculation of the plants with spores of VA-mycorrhizal fungi in the nursery. The experimental area consists of five blocks with eighteen plots each to test four mixed cultivation systems, compared to four conventional monoculture systems. Fallow plots are being analysed for reference. The current scientific research is focused on the response of the useful plants to the test variants applied, the identification and control of plant diseases, the ecological role of mycorrhizal fungi in the field trial, the biomass production and nutritional element supply of selected useful plant species and the analysis of the structural and functional traits of the spontaneous vegetation due to management. In addition, economic and acceptance studies are being conducted to find out whether farmers are willing to apply the tested cultivation systems in practice. A summary of the most important results obtained so far is presented.