FUNCTIONAL TRAITS OF THE SPONTANEOUS VEGETATION ON AN AGRICULTURAL TEST AREA NEAR MANAUS, AMAZONAS, BRAZIL

INDÍCIOS FUNCIONAIS DA VEGETAÇÃO ESPONTÂNEA NUMA ÁREA EXPERIMENTAL PRÓXIMA A MANAUS-AM

Preisinger, H. , Siqueira, S. G. do M. & Coelho, L. F.

ENV 23 - 8

In a recultivation experiment, different crop combinations and hence different types of management of the spontaneous vegetation are being tested. On the one hand, wild vegetation can constitute competition for the crops, on the other it can be an important nutrient store. Whether these opposed processes can be optimized in favour of the crops and of sustainable land use, is a question to be answered in the long term. Four months after clearing the area and six months after installing the experiment, vegetation surveys were carried out in the cultivated area, which focused on the growth-form structure and floristic composition of the spontaneous vegetation. Gradients were analysed by a multivariate ordination technique (CCA), due to the previous use of the area (past disturbance patterns) and soil characteristics (nutrients). The results show vegetation patterns formed mainly by differences in the extent of past disturbance. Many of the 300 species found in the area show a characteristic response to this factor. Based on observations in the field and results of vegetation analysis, a classification of frequently occurring plant species by strategy types and a preliminary concept of successional processes in the sites under study are presented.

INCIDENCE OF FOLIAR DISEASES IN MIXED CULTIVATION SYSTEMS

INCIDÊNCIA DE DOENÇAS FOLIARES EM SISTEMAS DE POLICULTIVO

Gasparotto, L. & Lima, M.I.P.M.

ENV 23 - 9

Mixed cropping systems can be an alternative to traditional cultivation methods in humid tropical areas such as Amazonia. The dispersion of species in the cultivated area will probably reduce the incidence of disease, because the non-host plants serve as a barrier to the spread of pathogens. The intensity of disease in the mixed cultivation and monoculture systems of the SHIFT project „Recultivation of abandoned areas with the aid of mixed cropping systems" has been studied. Since July 1993, the severity of infection of rubber trees has been assessed weekly and the incidence of disease in the other crops monitored monthly. Only rubber, orange, manioc and papaya have been affected. As the plants have not yet reached a sufficient height to form pathogen barriers, the differences between the monocultures and the mixed cultivation systems are not significant. The occurrence of *Microcyclus ulei* and *Thanatephorus cucumeris* in rubber, *Phytophthora citrophthora, Septobasidium pseudopediculatum* and *S. sacardium* in orange, *Meloidogyne sp* in papaya and *Xanthomonas campetris* p.v. *manihotis* in manioc are discussed.