

Production of agroforestry plants in polyculture systems in Western Amazon

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In the Western Amazon, large land areas nowadays are degraded and/or abandoned, which were previously used for the establishment of monocultures. Agroforestry systems appear to be a good alternative to occupy these areas. In this work, mixed cropping systems involving fertilizer input (30% and 100% of the recommended fertilization) and inoculation with VA-mycorrhizal fungi (absence and presence) were tested on a former experimental rubber plantation. The experimental area was divided into five blocks with eighteen plots each to test four mixed cropping systems (1. rubber, cupuaçu, peach palm, papaya; 2. cupuaçu, peach palm, brazil nut, urucum, manioc; 3. rubber, cupuaçu, coconut, orange, lemon, mahogany, louro pirarucu, jacareúba, manioc, beans, maize; 4. Rubber, paricá, mahogany, andiroba) and four conventional monocultures (rubber, cupuaçu, peach palm and orange). The plants inoculated with VA-mycorrhizal fungi showed higher growth rates in the nursery, and higher survival rates after planting out. However, the possible beneficial effects of mycorrhizal fungi were not detected in the field. Except cupuaçu and peach palm, all species presented a higher initial development and production in the treatments with more fertilizer compared to those with lower fertilization.