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2. Tropenobstbautag

dedicated to Prof. P. Lüdders for his achievements in the field of (sub) tropical fruits

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Book of Abstracts

P 10. Evaluation of the Nutrient Contents of Cupuassu (*Theobroma grandiflorum*) as a Function of Different Levels of Fertilizers

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Agroforestry systems have frequency been called one of the alternatives for sustainable use of Amazonian soils with possibilities to decrease deforestation, as well as presenting alternatives for diversification of crops, and increasing the income of the farmers. Amongst regional fruit trees, cupuassu (*Theobroma grandiflorum*) is a species that presents multiple uses, and is frequently found in agroforestry systems on farms. However, research on the nutritional aspects of the species is scarce. This research had the objective of evaluating cupuassu in an agroforestry system with different fertilizer levels. The work was carried out at the site of the SHIFT project, Embrapa Western Amazon, located on highway AM 010 km 30, between 1997 and 1998. The agroforestry system was composed of cupuassu (*Theobroma grandiflorum*), rubber (*Hevea spp.*) and peach palm (*Bactris gasipaes*) for heart of palm production. The levels of fertilizer were 100%; 100%+P; 30% and 30%-N of Embrapa's recommendations. Leaves (new leaves 3rd, intermediary 6th and old 9th), were collected six times, every 2 months, for analysis of N, P, K, Ca and Mg. Tissue analysis was according to Embrapa methodology. The concentrations of N, P and K varied as a function of the age of the leaves with the largest concentrations found in new leaves. With relation to the age of the leaves (new leaves, intermediary and old) it was observed that the intermediary leaf would be the best alternative for the plant diagnosis, because the variation was lowest. The highest nutrient concentrations were found in the samples collected immediately after fertilization and the lowest after fruit harvest. This suggests that in order to verify the effect of fertilization, leaf sampling should be made soon after fertilization, and in order to diagnose critically low nutrient values, after the time of fruit harvest.