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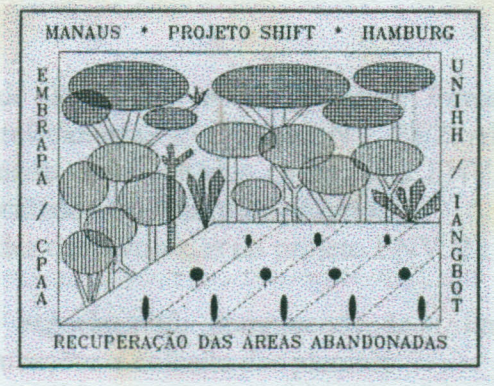

RECUPERAÇÃO DE ÁREAS DEGRADADAS E ABANDONADAS, ATRAVÉS DE SISTEMAS DE POLICULTIVO

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PRODUCTION OF CUPUAÇU (*Theobroma grandiflorum*) IN DIFFERENT POLYCULTURE SYSTEMS

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1. INTRODUCTION

Agroforestry is expected to be a good alternative towards sustainable agriculture in the amazon basin. Among the species used in this agroforestry system, the cupuaçu, a typical species of the amazon region, is considered the most promising one for commercial exploitation

In this study, the production of the cupuaçu was evaluated in the course of two years.

2. MATERIALS AND METHODS :

The production of cupuaçu was evaluated in three agroforestry systems : a) System 1 - Cupuaçu, peach palm, rubber and papaya; b) System 2 - Cupuaçu, peach palm, brazil nut, urucum and manioc; c) System 3 - Cupuaçu, coconut palm, rubber, orange, lemon, mahogany, "louro pirarucú", "jacareúba", cassava, maize and beans. This system have been treated by application of 30% or 100% of the recommended fertilizer dose combined with inoculation or not of seedlings with VA-micorrhizal fungi.

The field experiment was conducted as a randomized complete block with five repetitions. Tukey's multiple range test was used to evaluate differences among treatments.

3. RESULTS AND DISCUSSIONS :

In the Table 1, the production data of the cupuaçu in agroforestry systems were presented. The statistical analysis of the data, in all systems, did not shows any significant effect of the higher fertilization employed and micorrizhal inoculation on the production of this species during the years evaluated.

Figure 1 shows a statistical analysis between systems. The results show that the production of cupuaçu plants is higher in system 1 than in the other systems.

TABLE 1. Production data of the cupuaçu during two years in three agroforestry systems treated with two fertilization levels (30 and 100%) and mycorrhizal fungi inoculation (presence and absence).

SYSTEM	TREATMENT	LEVELS	Evaluated years			
			1996		1997	
			Fruit number per plant	Weight fruit (g)	Fruit number per plant	Weight fruit (g)
1	Fertilization*	100	8.0 a	901.3 a	8.0 a	970.0 a
		30	6.0 a	864.5 a	7.0 a	943.5 a
	VAMF*	presence	8.0 a	892.2 a	7.0 a	918.8 a
		absence	6.0 a	873.6 a	8.0 a	995.1 a
2	Fertilization*	100	4.0 a	788.9 a	3.0 a	806.8 a
		30	1.0 a	807.6 a	3.0 a	908.2 a
	VAMF*	presence	3.0 a	712.9 a	3.0 a	874.6 a
		absence	2.0 a	883.6 a	3.0 a	840.3 a
3	Fertilization*	100	2.0 a	650.3 a	5.0 a	942.4 a
		30	2.0 a	604.7 a	3.0 a	849.1 a
	VAMF*	presence	3.0 a	648.5 a	5.0 a	978.5 a
		absence	1.0 a	606.5 a	2.0 a	812.9 a

* Treatment with same letters within a column are not significantly different at the 0.05 level according to Tukey's multiple range test.

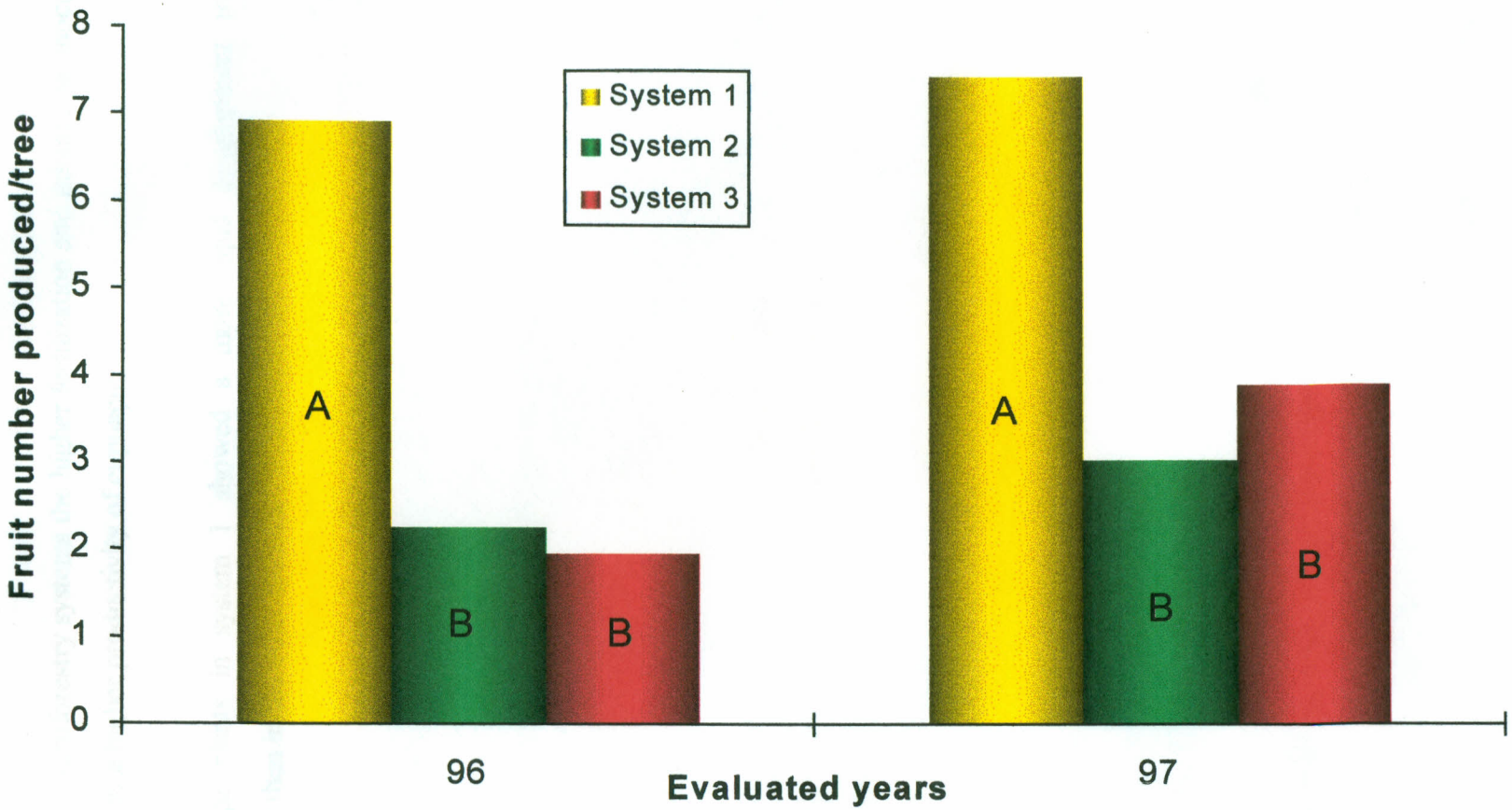

FIGURE 1. Production of cupuaçu plants in three agroforestry systems during two years.

4. CONCLUSIONS :

- In the studied agroforestry systems the higher fertilization and micorrizhal inoculation did not lead to a higher productivity of cupuaçu;

- The cupuaçu plants in system 1 showed a more rapid development towards productivity than in the other systems.