

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

PERÍODO: Janeiro a Dezembro/1997

Embrapa/CPAA - Universidade de Hamburg

Editores:

Luadir Gasparotto & Götz Schroth

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1997

Manaus-AM  
Maio/1998

Recuperação de áreas  
1998 RT-1998.00106



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## PRODUCTION OF PEACH PALM (*Bactris gasipaes*) FOR PALM HEART IN DIFFERENT POLYCULTURE SYSTEMS

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### 1. INTRODUCTION

The peach palm (*Bactris gasipaes*) is a native species of the american humid tropics, adapted to acid and poor soils. Because of its precocity, rusticity, and abundant shooting, this species offering a good alternative for cultivation in agroforestry system for production of palm heart.

In this study, the development and production of the peach palm were evaluated in the course of three years.

### 2. MATERIALS AND METHODS :

The development and production of peach palm were evaluated in two agroforestry system: a) **System 1** - Peach palm, rubber, cupuaçu and papaya; b) **System 2** - Peach palm, cupuaçu, brazil nut, urucum and manioc. Both systems 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 development data of the peach palm in agroforestry systems 1 and 2 are presented. In both systems, it could be observed that the high level of fertilization has had a significant influence on the development of peach palm. In the other hand, the micorrizhal fungi inoculation did not show any effect on the development of this species.

The production data of the peach palm in the agroforestry systems 1 and 2 were presented in the Figure 1 and 2, respectively. The data for palm heart production in the System 1 show no significant difference between the treatments with 30% and 100% fertilizer. In the System 2 a significant difference in palm heart yield between the two fertilization levels was observed at 30 months only. The micorrizhal inoculation did not show any effect on the production of the peach palm in both systems.

**TABLE 1.** Development data of the peach palm in two agroforestry systems treated with two fertilization levels (30 and 100%) and mycorrhizal fungi inoculation (presence and absence).

SYSTEM	TREATMENT	LEVELS	Height of plants at 12 months (cm)	Height of plants at 18 months (cm)	number of shoot per plant at 12 months
1	Fertilization *	100	114.5 a	235.6 a	6.7 a
		30	93.6 b	184.4 b	3.9 b
	VAMF *	presence	106.5 a	214.9 a	5.6 a
		absence	101.7 a	205.1 a	5.1 a
2	Fertilization *	100	118.0 a	192.1 a	5.4 a
		30	100.5 b	152.2 b	3.8 b
	VAMF *	presence	110.6 a	175.1 a	4.8 a
		absence	107.9 a	169.1 a	4.4 a

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

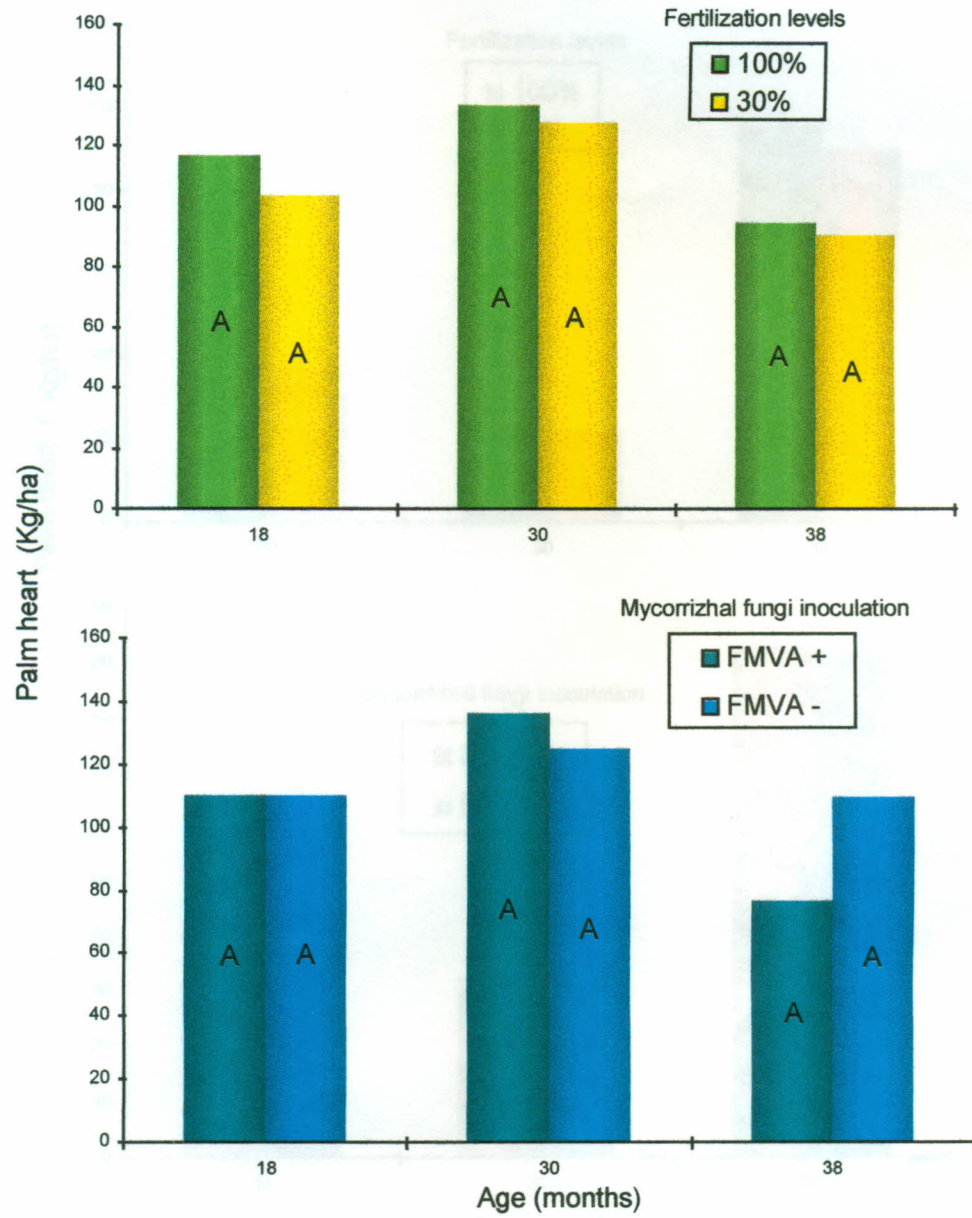


FIGURE 1. Production of palm heart at 18, 30 and 38 months in system 1 treated with two fertilization levels (30 and 100 %) and mycorrhizal fungi inoculation [(presence(+)) and absence(-)].

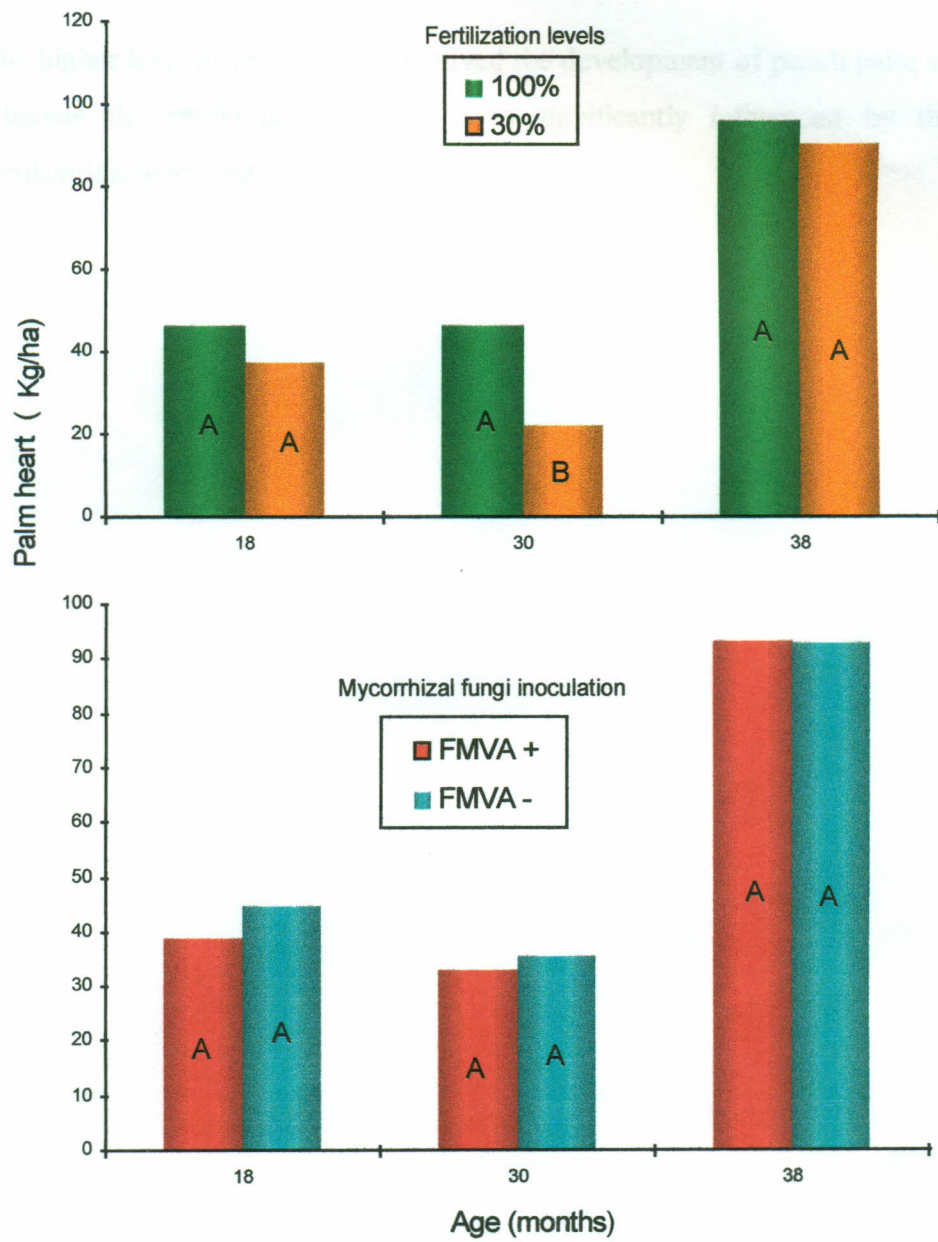


FIGURE 2. Production of palm heart at 18, 30 and 38 months in system 2 treated with two fertilization levels (30 and 100 %) and mycorrhizal fungi inoculation [(presence (+) and absence(-)].

#### 4. CONCLUSIONS :

- ➔ In all agroforestry systems which have been studied neither the development nor the productivity of peach palm was influenced by the inoculation of VAMF;
- ➔ The higher level of fertilization improved the development of peach palm significantly, whereas the production has not been significantly influenced by the different fertilization treatment.