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EFFECTS AND ECONOMIC VIABILITY OF INTERCROPPING COOKING BANANA WITH RUBBER IN NIGERIA

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Studies on the effects of intercropping cooking banana cv cadaba on the growth of rubber (*Hevea brasiliensis*) saplings were carried out from 1995 to 1996 at Akwete Nigeria. Banana was intercropped 18 months after planting rubber and four spacings were incorporated. No adverse effect of intercropping was noticed on the growth of *Hevea* saplings. The rubber + 4x2 m and 2x2 m spacings for cooking banana, had the highest girth increase rate with 0.23 and 0.22 cm per month. The highest mean cadaba bunch yield and production of suckers, of 9.0 t per ha and 5830 suckers per annum respectively, were observed in the rubber – 2x2 m spacing for cooking banana. This treatment also gave net present value of $ 132 : 51, a profitability index of 2.59 and internal rate of return of 50 per cent. The 2x2 m banana spacing was the only treatment that had the capacity to optimize returns from the land and ensure cash flow into the rubber based farming business thereby improving the liquidity position of the system during the long gestation period.

Key words : Cooking banana, Economic viability, *Hevea brasiliensis*, Intercropping, Nigeria.

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INTRODUCTION

The aim of intercropping food and perennial crops with rubber is maximum utilization of the space between rows of rubber trees before canopy closure. This approach not only capitalizes on the natural resource base, but also safeguards it, such that resource use is more efficient and sustainable. Payne (1985) pointed out that integrated cropping systems could be of vital importance in a world with a rapidly growing population. The absence of integrated cropping systems in tropical tree crop plantations such as rubber leads to gross under-utilization of the natural resource base of the environment (Tan *et al.*, 1969; Pushparajah and Tan, 1970; Watson, 1983).

Intercropping food crops has rarely been favoured in large rubber plantations, but has been a traditional practice in small holdings. The possibilities for intercropping perennials with rubber are much lesser than with annual food crops due to competition and light insufficiency. However, perennial crops such as banana, plantain and pineapple have given promising yield and quick economic returns (Melis, 1978). Banana is very suitable for small farmers, provided there is a market for the fruit and it can provide a reasonable cash return for a relatively small labour input (Lim, 1969).

Information is lacking on the intercropping system of cooking banana with rubber in Nigeria. This work was therefore, aimed at studying the effects of cooking banana cv cadaba at different spacings, on growth of *Hevea*, yields of banana and economic viability of the system.