

## Superior banana varieties in a Cacao-Cabruca agroforestry system in South of Bahia

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### Introduction

Since the cacao tree is a shade tolerant plant, it is cultivated in association with species which provide it with temporary and permanent shade, being considered one of the most classic agroforestry systems (AFS). The species mostly used for providing temporary shade is banana, which stays in the system for up to three to four years and can also serve as food and provide income in the period preceding the cacao production. The bananas cultivated in the cacao region of Bahia are the traditional ones from the AAB genomic group and are susceptible to main diseases such as Fusarium wilt and Sigatoka leaf spot. The objective of the present work was to evaluate productive performance of three traditional banana varieties and their respective tetraploid hybrids (AAAB) under a Cacao-Cabruca agroforestry system.

### Material and Methods

The field experiment was established at the experimental farm at the Mars Center for Cocoa Science, Barro Preto - BA. The experiment was established in an area of cacao crop renovation in a more than 20 year old Cacao-Cabruca System. The experimental design was in random blocks with six treatments and four replicates. The treatments were the banana varieties: Silk, BRS Princesa, Prata Anã, BRS Platina, Pacovan and BRS Pacovan Ken and spacing of 3 m x 3 m. Bunch weight per plant and survival of plants at the end of the first production cycle, were the characteristics evaluated.

### Results and Discussion

The bunch weight of the BRS Pacovan Ken and BRS Platina tetraploids was higher in comparison to the traditional varieties of the same subgroup (Fig. 1). BRS Princesa did not differ from Silk for the bunch weight characteristic, but due to its tolerance to Fusarium wilt, it reached the end of the first cycle with 100% of live plants, whereas Silk bananas registered 50% survival. The superior banana varieties had good performance in the Cacao-Cabruca agroforestry system in the South Region of Bahia and can be considered for potential use in AFSs.

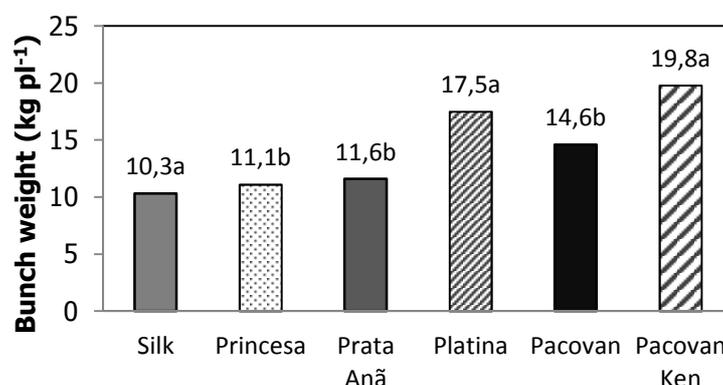


Figure 1. Bunch weight of six banana varieties in the Cacao-Cabruca agroforestry system, Barro Preto, BA. Average of 24 plants per treatment, harvest of first cycle.