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Spatial variability in the productivity of maize intercropped with Tachi (*Sclerolobium paniculatum*) in the Amapá savanna - Brazilian Amazon

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Introduction

Crop-livestock-forest systems can enable Brazilian agriculture, increasing the profit of the farmer and rancher, in addition to providing nutrients for plants, improve soil fertility, stimulates crop rotation, decrease the incidence of pests and diseases and increases jobs. In the northern region, stands out the need of search for rational exploitation of wood, being the recent research with intercropped agriculture-forest recently evaluated an alternative system of grain production.

Material and Methods

The experiment was carried out in 2013, but forest specie Tachi-white (*Sclerolobium Paniculatum*) was planted in 2010. The spacing between plants was 2 m x 12 m. In leading the Tachi was seeded maize, in the 0.80 m spacing with five plants per linear meter, seeking population of 60 000 plants per hectare. In full flower were conducted evaluations in 10 plants per plot, contemplating the dry matter production and plant height. It was also evaluated the productivity of corn grains. Data were subjected to the analysis of variance, and means were compared by the t test (LSD), at 5% probability.

Results and Conclusions

It is observed in Figure 1 large variation in all components evaluated, being that the agronomic depletion zone of productive components of maize focuses on two lines closest to the Tachi. For plant height and dry matter production, this variation is even greater, with only the central line (line 5) stands out on the other, indicating great potential for competition of this culture. On the other hand, to the grain yield, the 5 centerlines had similar results. For recommendation, according to soil and climatic conditions in the Amapá savanna and the spacing used, the planting of grains can be done until the third year in-between Tachi.

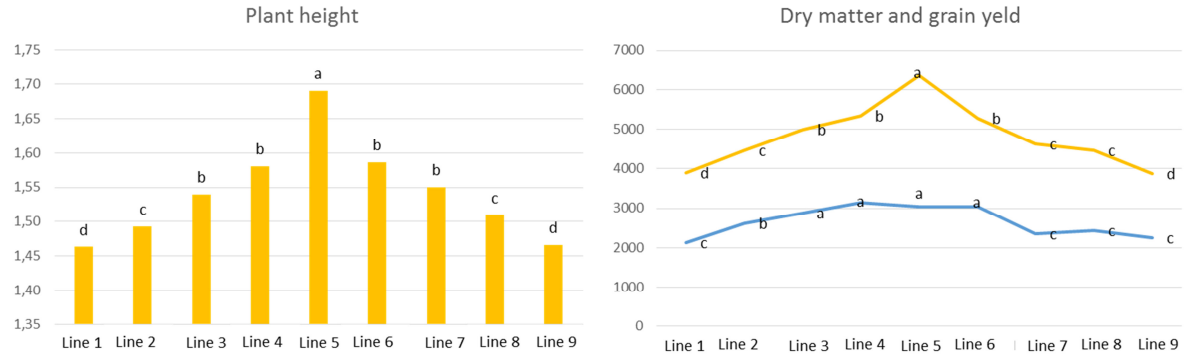

Figure 1. Maize plant height, dry matter and grain yeld as affected by distance from the Tachi.

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