

## Productivity of maize intercropped with *Gliricidia* (*Gliricidia sepium*) in 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 consortium agriculture-forest recently evaluated an alternative system of grain production.

### Material and Methods

The experiment was carried out in 2013, but forest specie *Gliricidia* (*Gliricidia sepium*) was planted in 2010. The spacing between plants was 2 m x 12 m. In leading the *Gliricidia* was seeded maize, in the 0.80 m spacing with five plants per linear meter, seeking population of 60 000 plants per hectare, in nine rows of maize between the trees. 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

There is great variation in the components evaluated (Figure 1), being that the agronomic depletion zone of productive components of maize focuses on two lines closest to the *Gliricidia*. Between the lines of *Gliricidia* showed better yields the central row and near the trees. This is possible since the formed shadow is not homogeneous, and corn can enjoy the organic waste produced by this fixing plant of N. For recommendation, according to soil and climatic conditions in Amapá savanna and the spacing used, the planting of grains can be done until the third year in-between *Gliricidia*.

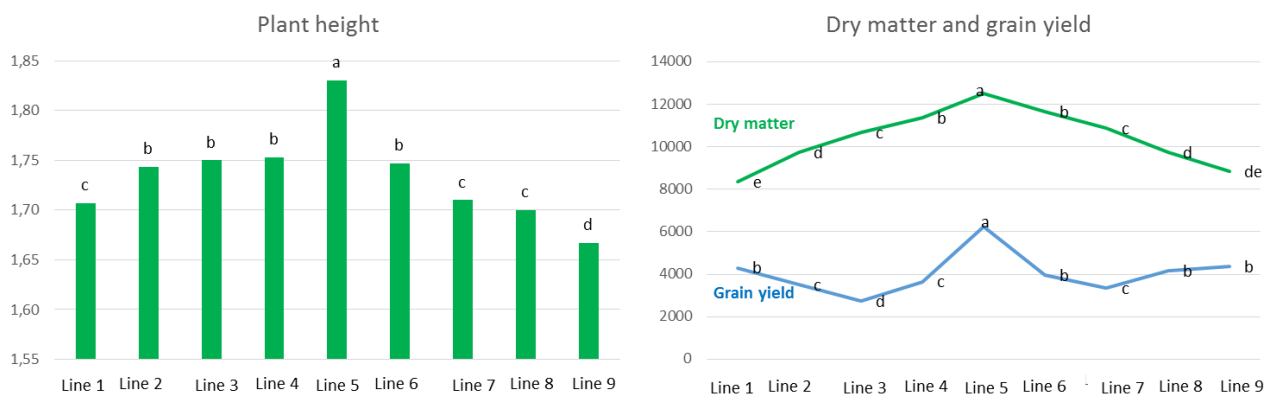


Figure 1. Maize plant height, dry matter and grain yield as affected by distance from the *Gliricidia*.

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