world congress on integrated crop-livestock-forest systems
3rd International Symposium on Integrated Crop-Livestock Systems
towards sustainable intensification • brasilia • brazil • 2015

Development of the Paricá *(Schizolobium amazonicum)* in Oxisol yellow in the Crop-Livestock-Forest integration system in eastern Amazon

Carlos A. C. VELOSO[1]*, Arystides R. SILVA[1], Agust SALES[2], Eduardo J. M. CARVALHO[1]
[1]Embrapa Amazônia Oriental, CEP 66095-100, Belém, PA, Brasil; [2]Universidade do Estado do Pará-UEPA, CEP: 68625-000, Paragominas, PA, Brasil.
E-mail address of presenting author*: carlos.veloso@embrapa.br

Introduction

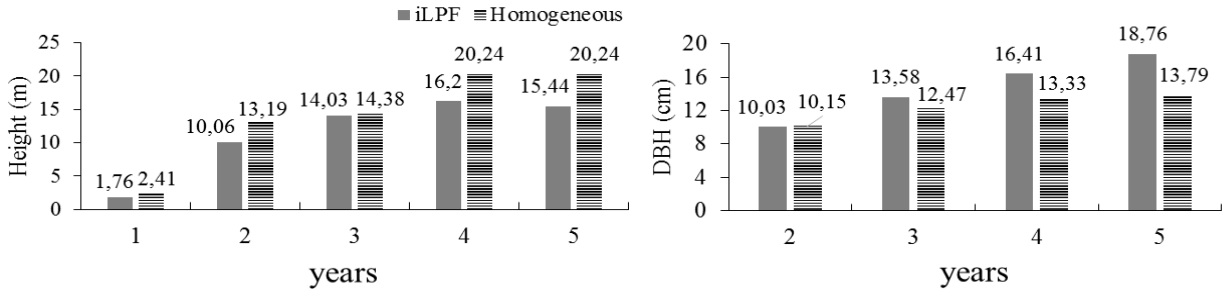
Cattle ranching in the Amazon generated an environmental liability of millions of hectares of degraded pastures, associated to economic decay due to low productivity and overall conjuctural factors. The system integration Crop-Livestock-Forest (iCLF) allows the recovery of these areas in a sustainable manner and with a production per area (Balbino et al., 2011). This study aimed to evaluate the performance of the paricá (*Schizolobium amazonicum*) in Crop-Livestock-Forest integration system in the eastern Amazon.

Material and Methods

The experiment was conducted on the farm Vitória (02 ° 57'29,47 "S, 47 ° 23'10,37" W, 89 meters of altitude), located in the municipality of Paragominas-PA. The treatments consisted of two cultivations of paricá: in iCLF system (consortium with corn BRS 1030 and *Brachiaria ruziziensis*) in an area of 4.05 ha, where was held the planting of trees in rows, each with 2 lines, in the spacing 4x3 m, being distance between rows 21 m, which totaled 24% of the area occupied by the track of rows and density of 267 trees.ha^{-1} and homogeneous system (1.35 ha) in the spacing 4x3 m. We evaluated the plant height in both systems from first to fifth year and the diameter at breast height (DBH) of the second to fifth year.

Results and Conclusions

Fig. 1. Height and DBH of plant of the paricá (*Schizolobium amazonicum*) cultivated for five years in Crop-Livestock-Forest integration system, farmVitória, Paragominas-PA.



The paricá in the iCLF system presented numbers minors of height of plant (m), however, had higher numbers of DBH (cm) compared with homogeneous system due to the spacing between the rows reduce competition for nutrients favoring the development of trees (Fig. 1). This demonstrates that the paricá (*Schizolobium amazonicum*) has good development in these systems, rapid growth and cutting ages, and assists in the recovery and maintenance of productive capacity of the soil.

References cited

Balbino et al. (2011) Pesq. agropec. bras.: sistemas de integração lavoura-pecuária-floresta, p.10.

Acknowledgements

To EMBRAPA Eastern Amazon, the project iLPF, project PECUS and the BASA - Bank of the Amazon by the financing of the search.