

Influence of solar radiation on offshoot number and production of peach palm (*Bactris gasipaes*) in agroforestry systems in Central Amazonia

Moraes, C.R.A.⁽¹⁾, Castro, P.R.C.⁽¹⁾, Bernardes, M.S.⁽¹⁾ and Macêdo, J.L.V.⁽²⁾

⁽¹⁾ Escola Superior de Agricultura "Luiz de Queiroz" – ESALQ/USP, Piracicaba, São Paulo, Brasil

⁽²⁾ Embrapa Amazônia Ocidental, Amazonas, Brasil

The peach palm (*Bactris gasipaes* H.B.K.) has aroused the interest of farmers due to being a native of the region, its precocity and shoot production, and because of the reduction in the offer of palm hearts from natural reserves, resulting in a high demand and price. Agroforestry systems (AFS) have shown indications of being a promising alternative for cultivation in agricultural lands, mainly in degraded areas of Amazonia. Therefore, the species implemented in AFS in those areas seems to bring good results. The experimental design is carried out in four random blocks with three treatments corresponding to:

- a) **AFS 1** – polyculture involving rubber tree (*Hevea brasiliensis*), peach palm (*Bactris gasipaes*) for heart palm production, cupuaçu (*Theobroma grandiflorum*) and papaya (*Carica papaya*);
- b) **AFS 2** – polyculture with peach palm, cupuaçu, Brazil nut (*Bertholletia excelsa*), urucum (*Bixa orellana*) and cassava (*Manihot esculenta*)

The soil of the agroforestry systems is covered by kudzu tropical (*Pueraria phaseoloides*). For comparison, the peach palm monoculture was included in the experiment. Each plot is comprised of 12 plants in one cultivated line chosen at random. AFS plants are adults and continue receiving pertinent cultivating treatments (fertilization, weeding) to avoid growth limitations. It has been under evaluation the production, growth rate, dry mass and LAI in peach palms. However, the growth rate of neighboring plants has also been recorded. The aim of this work is to obtain data on the effect of sun radiation on peach palms in AFS and monocultures.