



Culture of *Japana Branca* (*Ayapana triplinervis* (Vahl) RM King & H. Rob.) in Different Levels of Fertilization and Shading.

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This species is an herb that occurs in the Amazon belonging to Asteraceae family, which use is in the traditional medicine of the region (1). It has also been indicated for essential oil extraction aimed at the pharmaceutical industry, perfumery and cosmetics (2,3). The objective of this study was to evaluate the culture *Japana Branca* under different shading levels and fertilization types, to increase the biomass production efficiency and essential oil. The assay was conducted on the experimental field of the Institute of Agricultural Sciences at the Federal Rural University of Amazonia, campus Belem– Para-Brazil. To install the assay was adopted a factorial 4x4 in a completely randomized design with two repetitions, where the shading levels were 0%, 30%, 50% and 70% and the fertilization types (organic, organic + mineral, mineral and without fertilization), with 15 plants per plot. The following amounts of fertilizer per treatment were used: 1500 g of bovine manure; 200 g of NPK (10-28-20); and 1500 g of bovine manure + 200 g of NPK (10-28-20). The following parameters were evaluated: survival rate, weight of fresh mass, essential moisture-free oil content and oil yield / ha. The means were evaluated by Tukey (P<0.05). From the results obtained it was concluded that to culture of *Japana Branca*: a mineral fertilizer in the amount and formulation used (200 g NPK 10-28-20), influenced negatively on survival and essential oil content of plants; the organic fertilization influenced positively in biomass production and essential oil yield / ha; the shading level did not significantly affect the survival of plants and oil content, however, it had a tendency to obtain higher yields of biomass and yield of essential oil/h with increasing shading level; a significant interaction between the shading levels and types of fertilization was founded, where: the higher biomass yields were achieved with organic fertilization and shading levels of 30% and 50%; and higher yields of oil / ha with organic manure (62.25 kg/ha), organic + mineral (82.81 kg/ha) or no fertilizer (79.03 kg/ha) at the level of 70% shading.

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