VIII Simpósio Ibero-Americano de Plantas Medicinais
III Simpósio Ibero-Americano de Investigação em Câncer
Itajaí, SC, Brasil, 24 a 27 de outubro de 2016

LIGHT INTENSITY ON THE *IN VITRO* GROWTH of *Phyla betulifolia* (Kunth) Greene

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Introduction: *Phyla betulifolia* (Kunth) Greene (Verbenaceae) can be found in Costa Rica, Guatemala, Honduras, Panama, Cuba, Trinidad in the West Indies, Bolivia, Brazil, Colombia, Ecuador, Paraguay and Venezuela. In the Amazon region, its leaves are popularly used as a sedative and to control diabetes. **Objective:** To determine the optimal light intensity for the *in vitro* growth of *P. betulifolia.* **Material and Methods:** Nodal segments obtained from plantlets cultivated *in vitro* were inoculated in test tubes containing MS medium with 30 g/L of sucrose, 6g/L of agar and pH 5.7 ± 0.1. The plantlets were maintained under different light intensities (28, 51, 64, 76 and 113 µmol m^{-2} s^{-1}) obtained with cool white fluorescent lamps. At 30 days, were evaluated shoot length (SL), leaf area (LA), dry biomass of leaves (DBL), stem (DBS), root (DBR) and total (TDB). The experiment was carried out with 5 replications, 4 tubes for each one, and the experimental design used was the completely randomized. The data were analyzed by the test of Scott-Knott. **Results and Discussion:** With the exception of the SL, which was better in the intensities of 28 and 51 µmol m^{-2} s^{-1} (3,33 and 3,24cm, respectively), plantlets maintained under the intensity of 113 µmol m^{-2} s^{-1} showed the best results. They showed higher LA (2cm^2), DBL (90 mg) and TDB (140 mg). **Conclusion:** For the *in vitro* growth of *P. betulifolia* the optimal light intensity is 113 µmol m^{-2} s^{-1}. With this intensity is possible obtain the greater leaf area and total dry biomass.

Support and/ or Acknowledgments: FAPEMIG, CAPES and CNPq.

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