**In vitro** regeneration of *Pyrostegia venusta* seedlings from apical meristem culture

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*Pyrostegia venusta* (Ker Gawl.) Miers (Bignoniaceae) or “orange trumpet”, or “cipó-de-São-João”, is a vine widely distributed in Brazilian territory. The shoots are used in traditional medicine for the treatment of respiratory diseases and vitiligo. Due to the increasing pharmacological interest of this species and its seasonal propagation, the regeneration of plants from apical meristems is an economically viable alternative, since it allows the propagation of the species at different times of the year, besides the production of metabolites of interest. The aim of this study was to evaluate the effect of cytokinin BAP (6-benzylaminopurine) and auxin (α-naphthalene acetic acid), AIA (indolylacetic acid) and 2,4-D (2,4-dichlorophenoxyacetic acid) on regeneration of stem apices from *P. venusta* seedlings grown in vitro. *P. venusta* seeds were placed in MS medium supplemented with 30 g L\(^{-1}\) sucrose and solidified with 7 g L\(^{-1}\) agar. From the seedlings obtained in vitro, the shoot apices were removed, which were placed in media containing BAP (0; 0.5; 1; 2 mg L\(^{-1}\)) for shoot regeneration and in media containing the auxins ANA, AIA and 2,4-D (0, 0.5, 1 mg L\(^{-1}\)) for root regeneration. After 30 days of incubation in a growth room, the following parameters were evaluated: a) shoot percentage, shoot length, number of leaflets and fresh and dry shoot; b) percentage of rooting, length of roots and fresh and dry matter of roots. The data were submitted to ANOVA and the means were compared by the Tukey test (p≤0.05). The results showed that the apices presented 100% shoots in all the treatments tested, with emphasis on the treatment with 0.5 mg L\(^{-1}\) of BAP, with a longer shoot length (1.56 ± 0.66 cm, on average) number of leaflets (around 8) and dry fresh matter (42.14 ± 27.73 mg and 8.11 ± 4.63 mg, respectively). The treatment with 1 mg L\(^{-1}\) of ANA showed to be the most efficient in relation to rooting (70% on average) and with higher mean values of root length (1.04 ± 1.19 cm) and fresh and dry matter (4.89 ± 7.23 cm and 3.16 ± 3.24 cm, respectively). This work showed that regeneration of *P. venusta* plants from shoot apices is possible by supplementing the MS medium with 0.5 mg L\(^{-1}\) BAP for 30 days, followed by transfer of shoots to MS medium containing 1 mg L\(^{-1}\) of ANA.

**Keywords:** micropropagation, auxins, cytokinin, medicinal plant, Bignoniaceae.

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