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Impact of light intensity on early vegetative growth of *Pogostemon heyneanus* Benth. (Lamiaceae)

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Pogostemon heyneanus Benth. (Lamiaceae) is a large, straggling under shrub cultivated to extract patchouli oil, a high demand ingredient in pharmaceutical, perfumery, food and beverage industries. However, the effect of local external environmental factors on growth of *P. heyneanus* under field conditions has not been studied. Therefore a field experiment was conducted to determine the effect of different light intensities (full sunlight, 50% and 70%) on growth of *P. heyneanus* in terms of plant height, number of leaves, number of branches, branch length, plant spread, stem diameter and total chlorophyll content. The treatments were arranged with randomized complete block design with three replicates. Plant growth data were taken at fortnight intervals for a period of two months. Two months after planting, foliar chlorophyll contents were determined under each shade level. All the data collected were subjected to analysis of variance and the means were separated by Duncan's Multiple Range Test at a probability level of 0.05. During the period of study plant height, number of leaves, number of branches, branch length, plant spread, stem diameter significantly increased with the increase in shade level. For all tested parameters the highest growth was found in plants grown under the shade of 70% while the minimum was found in plants grown under full sunlight. The highest amount of foliar chlorophyll content was found in the plants grown under 70% and it was significantly different from 50% shade and under full sunlight. However, chlorophyll contents were not significantly different between 50% shade and full sunlight. Our results concluded that among the selected shade levels *P. heyneanus* had the highest vegetative growth under the shade of 70%. It could be partially justified that *P. heyneanus*could be successfully cultivated under intensive shaded conditions. However, the current study has to be further continued on herbage yield, oil content, oil composition, secondary metabolites and bioactivity for an extended period of time before recommendations could be suggested.

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