

**INFLUENCE OF DIFFERENT SHADE LEVELS ON THE
GROWTH AND QUALITY OF *Codiaeum variegatum* var.**

'Bush on fire' IN THE BATTICALOA DISTRICT



BY



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SRI LANKA

2017

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ABSTRACT

Codiaeum variegatum var. "Bush on fire" is an ornamental foliage shrub with beautifully variegated glossy multi coloured leaves. The vivid shiny variegated leaves adds value for its quality in the export market. Light intensity greatly influences the amount of variegation in these plants. A shade house experiment was carried out to evaluate the effects of graded shade levels on the growth and quality of *Codiaeum variegatum* var. "Bush on fire", in the Batticaloa district during the period of July 2017 to November 2017. The experiment was arranged in completely randomized design with twenty replications. The experimental location was crop farm, Eastern University, Sri Lanka. Graded level of shades were defined as treatments viz. open field (T1), 50% (T2), 60% (T3), 70% (T4), and 80% (T5) of shade levels. Shade houses were constructed using commercial nylon nets of different shade level. Rooted and uniform cuttings were used as planting materials. Agronomic practices were followed uniformly for all treatments. Plant height, leaf area and plant biomass were measured at monthly interval and quality of cuttings was assessed at the end of experiment. Analysis of Variance was performed to determine significant difference among treatments ($p < 0.05$). Plants provided with 50% shading showed significantly ($p < 0.05$) better performance in measured growth parameters viz. plant height, plant biomass and biomass partitioning, while the lowest performance was observed in plants grown at 80% (T5) shade level condition. In quality assessment, plants grown at open field (T1) received significantly highest score. Further plants grown at open field showed compactness, better leaf size and increased leaf thickness. From this study it could be concluded that, plants grown at 50% shade level would have received optimum light as the growth of the plants was

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