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**GROWTH PERFORMANCE OF THREE RATTAN (*Calamus*) SPECIES
PLANTED UNDER PINE PLANTATIONS AT SINHARAJA BUFFERZONE.**

BY

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ABSTRACT

Present study examined the growth performance in terms of plant height, total lengths of stems, diameter, clump formation and number of live leaves of three large diameter *Calamus* species *Calamus zeylanicus* Becc., *Calamus thwaitesii* Becc., and *Calamus ovoideus* Thw. ex Trim. planted under pine plantations in buffer zone of Sinharaja, Sri Lanka. Four sites of rattan plantations in different ages were selected with each site consisting of five plots. Lengths of stems were estimated and stem diameter was measured without the sheath. Number of live leaves and stems in a clump was counted in each plant. Estimation of height and diameter measurements of pine trees, identification the number of undergrowth species and soil analysis was done to depict the site quality. Data was analysed using analysis of variance in MINITAB statistical computer package. Results indicate that *C. zeylanicus* has the best growth performance in terms of plant height, total stem length and highest growth rate at maturity and has a lower growth rate at young age. *C. ovoideus* showed moderate growth performance in terms of length, diameter, clump formation and number of leaves. Moreover a constant level of growth performance showed by *C. ovoideus*. *C. thwaitesii* showed the best performance in terms of clump formation but least in terms of growth rate and plant height.



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