

DETERMINATION OF BEST POTTING MEDIA FOR *Livistona rotundifolia* TO MINIMIZE LEAF YELLOWING

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Livistona rotundifolia (Lam.) Mart. (*Areaceae*) is an ornamentally important species used for landscaping and commonly marketed as a potted plant for outdoor decorations. *L. rotundifolia* is commonly known as queen palm, which has huge demand in foreign market, and derives higher profit in horticultural industry. However, research is hindered by lack of information on germination, seedling growth and management practices. Yellowing of leaf tips decrease the commercial value of the plant due to problems in present potting media. Potted plants in soil and sand free medium have higher commercial value in foreign market. Therefore, this research was conducted in Madawala zone of Mike Flora (Pvt) Ltd, Rumbukkana under net house conditions to find-out the most suitable, commercially viable media for *Livistona rotundifolia* potted plants. Hence, this study aimed at describing leaf yellowing of *L. Rotundifolia* potted plants in different potting medium with the age. Thirty-six treatments comprised 1, 3 and 12-month old coir dust as major potting medium, compost, cow dung and elephant dung as filling materials and full, half and zero concentrations of $\text{Ca}(\text{NO}_3)_2$ as supplement. The experiment was conducted as a three-factor factorial in complete randomized design with three replicates each. The effectiveness of those treatments was determined by measuring the yellowed leaf area, pH and EC of the media once a week. Results revealed that yellowing area of the leaf does not change significantly ($p < 0.05$) with the age of the coir dust and type of the filling material. But, yellowing area was significantly ($p < 0.05$) differ with the concentration of the $\text{Ca}(\text{NO}_3)_2$. There was no significant ($p < 0.05$) difference between 0.5 gL^{-1} and 1 gL^{-1} concentrations of $\text{Ca}(\text{NO}_3)_2$. However, 0.5 gL^{-1} concentration of $\text{Ca}(\text{NO}_3)_2$ maintained best EC range ($10\text{-}40 \text{ dSm}^{-1}$) that showed minimum leaf yellowing at any age (1-12 month) of coir dust with any of above filling material. Therefore, we can recommend *L. Rotundifolia* growers to add 0.5 gL^{-1} of $\text{Ca}(\text{NO}_3)_2$ to potting medium to minimize leaf yellowing.

Keywords: Calcium nitrate, Compost, Cow dung, Elephant dung, Potting media