



Characterization of Phenotypic Variation in Selected Croton [*Codiaeum variegatum* (L.) Rhumph. ex A. Juss.] Varieties and Natural Mutants

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ABSTRACT – Thirty-six croton [*Codiaeum variegatum* (L.) Blume] varieties and natural mutants were characterized phenotypically based on the leaf length, leaf width, petiole length, leaf shape, leaf margin, leaf base and leaf apices. The leaf and petiole color were also characterized based on the Colour Chart of the Royal Horticultural Society of London (RHS 1966 5th ed.). The different varieties and natural mutants were grouped based on their predominant leaf color, hence giving rise to the establishment of the red-leaf group, green-leaf group and yellow-leaf group varieties. A relatively small morphological variation was observed within each of the three groups in terms of quantitative traits like leaf length, leaf width, and petiole length. However, large variability was observed for qualitative traits including: leaf shape, leaf margin, leaf base and leaf apices. In addition, large variation for leaf and petiole colors within the red-leaf, green-leaf and yellow-leaf groups were observed. In particular, leaf color variation was unique in each of the 36 croton varieties and natural mutants characterized. Furthermore, two new natural mutants namely: ‘Sporting Philippine Red’ and ‘Bay Mutant’ and one seed-derived genotype ‘Tilapia Yellow’ were isolated and first described in this study.

Keywords: crotons, [*Codiaeum variegatum* (L.) Rhumph. ex A. Juss.] mutants, phenotype, varieties



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