INVESTIGATION OF VASE LIFE PACKAGE ON *Codiaeum Variegatum* CUT DECORATIVE SHOOTS

P B R Weeraratne[1], M P Jayatilleke[1] & G K K Priyantha Kumara[2]
[1]Dept. of Crop Science, Faculty of Agriculture, University of Ruhuna
[2]Green Farm Ltd. Pahala Walahapitiya Rodd, Marawila

Croton is one of the exportable type foliage species in Sri Lanka. However, wilting of the leaves is a major problem raised in the export of these foliage species. In order to full fill the demand in world market, it is essential to overcome such problems.

In this study, seven experiments were conducted at Green Farms (Pvt) Ltd. Marawila, to maintain the vase life of *Codiaeum varigatum* cv. 'Batik', 'Pictum', and 'gold star' cut decorative shoots and to retain their export quality characters. Sugar (0, 1, 2, 4 & 5%), $NiCl_2$ (250, 500, 750 & 1000ppm), combination of sugar (2%) + $KMnO_4$ 2ppm and glycerol (1, 5 and 10%) were tested as treatments (vase solutions) in separate experiments. Treatments were arranged in complete randomized design with 3 replicates each. Data were analyzed using SAS statistical method with analysis of variances. Mean separation was done using LSD on parametric procedures.

Croton had ability to maintain vase life up to 3 weeks in preliminary studies. To comparison of different packing methods for vase life of croton, wet paper packing showed higher vase life and higher leaf freshness for croton. Sugar treatments applied to "Pictum" and "Gold star" were maintained 21 days of vase life. "Batik" showed only 17 days vase life (C.V. =7.750323). $NiCl_2$ gave 18 days of vase life for "Batik" (CV = 11.04419) however it is harmful to human. According to the re-cutting & water changes, 4 days cutting interval and 2 days water change was the best. Combination of sucrose & $KMnO_4$ was maintained vase life vase life up to 14 days. Combination of Sucrose 2% + $KMnO_4$ 2 ppm & Cotton plug was best among all sugar concentrations (C.V. = 10.90617). For this could maintain export quality up to 19 days. "Pictum" & "Gold Star" were tolerant cultivars. Pure glycerol gave negative effects. All dilute glycerol concentrations (1, 5 and 10%) were good post harvest treatments. Among those, 5% could maintain export quality of "Batik" cuttings up to 20 days. Combination of wax + $KMnO_4$ + sucrose treatment gave negative effect. Pure wax with commercial preservatives did not enhance the quality.