

**EFFECT OF POSTHARVEST TREATMENTS ON  
VASE LIFE AND QUALITY OF *Calathea zebrina***

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## ABSTRACT

Among cut foliage varieties exported from Sri Lanka *Calathea* species has a good demand in European countries. *Calathea zebrina* (Zebra plant) is one of popular *calathea* species belongs to family marantacea. Cut leaves of *C.zebrina* are used for interior decorations, landscaping, floral arrangement and bouquets. Wilting and rolling of cut leaves leading to short vase life and these problems limits the export potential of *C.zebrina*.

Three experiments were conducted to test the effect of post harvest treatments on vase life and quality of *c.zebrina* cut leaves. Yellowing and rolling of leaves, change of chlorophyll content, weight loss were used as vase life determining factors.

Experiment 01 was conducted to find out the best vase solution to extend the vase life. Twelve treatments were arranged in complete randomized design. The best solution was 50 ppm citric acid to extend the vase life. It showed minimal chlorophyll change and highest vase life with respect to all leaf characters. Experiment 02 was conducted to identify the effect of packing material on vase life. Control with no packing material, unprinted paper, cellophane, unprinted paper + cellophane were used as packing materials. Cut leaves from the packages of cellophane exhibit the longest vase life where as the leaves without packing material (control) had the shortest vase life. Use of any kind of packing material resulted a reduction of weight loss. Highest weight loss was observed in control leaves and lowest weight loss was observed in unprinted paper + cellophane and cellophane packages. These results suggest the suitability of cellophane as a packing material for long distance transportation. Experiment 03 was conducted to identify the effect of suitable petiole length on vase life. Five petiole lengths were tested. According to results there is no effect of petiole length on vase life and need further studies on this.

Key words: Cut foliage, Vase life, Chlorophyll content, Packing material, Petiole length