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**Extension of post-harvest life of green leafy vegetables, *Alternanthera* and *Sesbania* through improved post-harvest practices**

K B B Chathuri<sup>1\*</sup>, N P Pallepitiya<sup>1</sup>, K H Sarananda<sup>2</sup> and W A P Weerakkody<sup>1</sup>,

<sup>1</sup>Department of Crop Science, Faculty of Agriculture, University of Peradeniya

<sup>2</sup>Food Research Unit, Department of Agriculture, Gannoruwa, Peradeniya

*Alternanthera sessilis* (Mukunuwenna) and *Sesbania grandiflora* (Kathurumurunga) are the main green leafy vegetables which provide vitamins and minerals to many Sri Lankan diets. They have high demand in the export market as well. However, it is difficult to export because of early senescence, wilting and defoliation. Therefore this study was mainly conducted to determine the effect of pre-cooling, time of harvesting, orientation of the bundles (in storage) and the effect of modified atmosphere on minimizing early senescence, wilting and defoliation and there by to develop a proper method to extend the shelf life of *Alternanthera* and *Sesbania*.

The result revealed that harvesting of both *Alternanthera* and *Sesbania* leaves in the early afternoon extends the shelf life compared to morning harvesting. Pre-cooling (room cooling at 10-12 °C for half an hour) alone is effective for *Alternanthera* for reducing wilting, yellowing and weight loss while pre-cooling (room cooling at 10-12 °C for half an hour) followed by packing with gel ice was more effective against defoliation (3.45% weight loss) for *Sesbania* leaves. In the wrapping material test for *Sesbania* the least weight loss (0.25%) was observed in samples wrapped with 150 gauge low density polyethylene (LDPE) compared to other wrapping materials. However there was no difference among different wrapping materials such as LDPE, polypropylene and cling film with respect to the rate of yellowing, wilting and sensory qualities. Based on the same indices, placing the bundles vertically inside rigid form boxes was identified as the best packing procedure for both *Alternanthera* and *Sesbania*.

Sealed LDPE developed a conducive storage atmosphere for preserving the quality of *Alternanthera* up to 5 days at storage temperature of 26 °C whereas *Sesbania* could be kept for 4 days without a significant level of deterioration.

\*kbbchathuri@yahoo.com

Tel: 081-2395111