Title Standardization of export packaging technology for jasmine (*Jasminum sambac* Ait.) flowers (Patent application No. 1370/CHE/2010)

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Abstract

An investigation was conducted to standardize a packaging technology for export of jasmine (*Jasminum sambac* Ait.) flowers. Experiments were laid out statistically on FCRD with two factors (chemical treatments and packing boxes) and three replications. The flowers were treated with different chemicals (12) and packed in unit packing boxes (aluminium foil lined card board boxes and polypropylene boxes) and finally packaged in thermocole boxes under gel-ice cold condition. Observations were recorded on the visual quality (freshness index, flowers opening index, colour retention index and fragrance score) of flowers and the physiological parameters (PLW, Moisture content, Membrane integrity and respiration rate) associated with the post harvest quality of flowers. The export suitability of the package was tested with M/S. Vanguard Exports (a private exporting firm of Jasmine flowers to United States) and the BCR (Benefit Cost ratio) was worked out. It was found that the chemical treatment of flowers with 4% boric acid + packing in Aluminum foil lined boxes + packaging in thermocole boxes under gel-ice cold condition was found significant and recorded a shelf life of 42.88 hours (including the air transit time of 36 h). This package recorded the maximum freshness index (70 to 90 per cent), minimum flower opening index (10.5 to 50 per cent) and maximum colour retention index (77.77 to 88.88 per cent) of flowers. The physiological parameters also significantly influenced the shelf life of flowers in the package. The export package was also found to be highly suitable for export with a BCR of 1:2.5.