# The Effect of Different Fruit Bagging on Post- Harvest Quality of Guava

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Post-harvest techniques affect the quality of fruits and vegetables, and which determines the consumer acceptability. Hence the postharvest techniques should be improved to get maximum profit by the marketing agricultural products. Fruits are mainly consumed as raw so which cultivars require specialized post-harvest technologies to get good quality fruits. This study was conducted to improve the post-harvest quality of Guava fruits through application of different fruit bagging materials. Five treatments were conducted such as brown protective paper bags, white protective paper bags, transparent polythene bags, blue polythene bags and Newspaper bags to cover the fruits. The temperature variation, physical parameters (weight, volume and diameter), physiochemical parameters (firmness, peel color, pulp color, total soluble solid (TSS), titratable acidity (TA), pH and microbial pathogens were analyzed after harvest with different treatments. Qualities of fruits were observed by visually and organoleptic parameters were evaluated by sensory analysis. Temperature variation, physical parameters (weight, volume and diameters) showed significant difference ($p$ <0.05) Physiochemical parameters such as firmness, PH, *a value of peel color,* L value and *b value of pulp color didn't show any significant different ($p$ >0.05) among different fruit bagging materials during fruit development period. The fruit in brown protective paper bags gave maximum weight, diameter and volume. Blue polythene bags showed maximum titratable acidity (TA), firmness, pH and lower total soluble solid. According to microbial pathogens analysis, bacterial infection was observed in polythene bags, transparent polythene bags and paper bags and physical damage was observed in all treatments. According to sensory evaluation the fruits in brown protective paper bags showed better taste and texture and blue polythene bags showed better color, odor and shape of fruit.

**Keywords**: Fruit bagging material, Guava, Physicochemical parameter, Physical parameter, Post-harvest quality