

**EFFECT OF POTASSIUM SORBATE AND  
THICKNESS OF PACKAGING MATERIAL ON  
SHELF LIFE OF COCONUT FINGERS**

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## ABSTRACT

Coconut Finger is a product made from coconut kernel and sugar. This product is more susceptible to mold growth and rancidity. Hence it has a very short shelf life about one month. This research was conducted to investigate the effect of potassium sorbate and thickness of packaging material on shelf life of coconut fingers. Prepared coconut finger samples were treated with 0.20% and 0.27% Potassium sorbate levels separately. A sample of 30 g from each treatment was packed using three different gauges of Low-Density Polyethylene (LDPE) packages (500,600 and 700 gauge). Samples were stored at 25 °C and 65% relative humidity with a control sample. Samples were periodically withdrawn to assess changes in physical, chemical and microbiological qualities. According to chemical analysis, with respect to Peroxide Value and Free Fatty Acid values, Potassium sorbate treated samples showed greater oxidative stability than control sample throughout the period of study. Potassium sorbate treated samples showed less counts than control. Based on moisture contents, Potassium sorbate treated samples showed low moisture contents than control. In color measurements, Potassium sorbate treated samples were better than control. According to the statistical results, the effect from potassium sorbate is significant( $p < 0.1$ ). The effect from LDPE is not significant( $p > 0.1$ ). However, The effect of interaction between potassium sorbate and LDPE is not significant( $p > 0.1$ ). In conclusion, there is an effect of potassium sorbate and no effect from gauge of LDPE used here for packaging, on the shelf life of coconut fingers. According to the physical, chemical, microbiological and statistical results obtained, the best potassium sorbate level is 0.27% and according to the cost analysis, effective packaging was 500 gauge LDPE.

*Key words:* Coconut Fingers, Potassium sorbate, Gauge, Shelf life