

The Use of Types of Packaging and Nano Calcium Lactate Fortification of Egg Shells on Sensory Quality of Ungkep Broiler Meat

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ABSTRACT

This research aims to determine the effect of type of packaging and nano calcium lactate fortification of egg shells on the sensory quality of cooked meat stored at -18°C for 6 weeks. The ingredients used included broiler meat, spices (shallots, garlic, turmeric, ginger, galangal, candlenut, coriander), sugar, salt, palm oil, monosodium glutamate, and nano calcium lactate egg shell. The study used a completely randomized design with 6 treatments: P1 (0% polyethylene control), P2 (0% nylon control), P3 (0% retort pouch control), P4 (calcium lactate 0.6% polyethylene), P5 (calcium lactate 0.6% nylon), and P6 (calcium lactate 0.6% retort pouch). Parameters observed included color, aroma, taste, texture, tenderness, juiciness, and overall acceptability. Sensory testing was conducted by 40 untrained panelists using a likert scale of 1-5, namely very dislike to very like. Data were analyzed using non-parametric analysis of Kruskal-Wallis hedonic test and continue with Mann-Whitney test if there are differences. The results of the study indicate that nano calcium lactate fortification has a significant effect on the aroma of products packaged in polyethylene and the texture and tenderness of meat packaged in polyethylene and nylon. Nano calcium lactate fortification at 0.6% with vacuum packaging using polyethylene and nylon is recommended for broiler meat because it effectively prevents quality deterioration during storage.

Keywords : *packaging, fortification, sensory quality, nano calcium lactate, ungkep.*