EFFECT OF DAYAK ONION EXTRACT (*Eleutherine americana* Merr.) AND STORAGE DURATION ON REFRIGERATOR ON TOTAL MICROBIAL COUNT AND SENSORY OF BROILER CHICKEN SAUSAGE

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ABSTRACT

The aim of this study was to evaluate the effect of additon of the Dayak Onion extract (*Eleutherine americana* Merr.) and storage duration on refrigerator on total microbial count and sensory characteristics of broiler chicken sausage and knowing the interaction between the addition level of Dayak Onion extract and the storage duration. Levels of addition of the Dayak Onion extract were 0%, 0,5%, 1,0%, 1,5% and 2,0%. Chicken sausages were stored 14 days at ±4°C and samples for total count and analysis sensories were done at 0, 7, and 14 days of storage. Total microbial count was evaluated using total plate count (TPC) method, while sensory characteristics, including colour, flavor, taste, texture, elasticity, and acceptability were assessed by 15 panelists. The data total microbial were analyzed by factorial, sensory characteristics data were analyzed by non parametic analysis using Hedonic test according to Kruskal-Wallis. The differences between means were analyzed by duncan multiple range test (DMRT). The results showed that supplementation of Dayak Onion extract had decreased on total microbial count and increase colour, texture, elasticity and acceptability ($P<0,05$), but it had no significant effect on taste and flavor. The duration of storage had increased the total microbial count and decrease the sensory quality ($P<0,05$). In conclusion, addition of Dayak Onion extract at 2.0% level can be inhibiting the total microbial count to 3,65 log CFU/g and increase the sensory quality of chicken sausage. The addition of dayak onion extract at 2.0% with storage time at 0 days afford total microbial count to 3,65 log CFU/g.

Keywords: Sausage, dayak onion, total microbial count, storage time, sensory