The Effect of Broiler Bone Nano Calcium Citrate Addition on the Sensory Quality of Broiler Meat Braising

Muhammad Syafi'ul Umam
Poultry Agribusiness Study Program
Department of Animal Science

ABSTRACT

This study aims to determine the effect of the addition of nano calcium citrate of broiler bone on the sensory quality of braising chicken broiler meat. The materials of this study consisted of broiler bones, lime, distilled water, ethanol, chicken broiler meat, shallots, garlic, turmeric, candlenut, ginger, galangal, coriander, ginger, sugar, salt, palm oil, and monosodium glutamate. The treatment of adding nano calcium citrate to broiler bones consisted of P0 (0%), P1 (0.15%), P2 (0.3%), P3 (0.45%), and P4 (0.6%) of the total meat. Broiler meat was steamed at 65°C with a steaming time of 60 minutes. Braising broiler meat was vacuum-packed and afterward stored in a refrigerator for 18 hours. A 60-minute steaming process was used to cook broiled meat. Sensory quality testing was conducted by 40 untrained panelists. Parameters observed included color, aroma, taste, texture, tenderness, juiciness, and acceptability. Sensory quality testing with a hedonic test using a Likert scale, namely: 1 (strongly dislike), 2 (dislike), 3 (somewhat like), 4 (like), and 5 (strongly like). The sensory test data were analyzed by non-parametric analysis through the Kruskal Wallis hedonic test and if there was a difference, it was further tested by Duncan's New Multiple Range Test. The results showed that different levels of addition of nano calcium citrate in broiler meat did not affect the color, aroma, teste, texture, tenderness, juiciness, and acceptability. The conclusion of this study is that broiler bone nano calcium citrate can be added up to the level of 0.6% of the total broiler meat braising.

Keywords *: broiler meat, fortification, sensory quality, nano calcium citrate, braising.*