

Effects of Nano Calcium Lactate Fortification with Different Packaging on Total Bacteria, Peroxide Number, and pH Value of Broiler Meat Reveal

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ABSTRACT

This research aims to determine the effect of nano calcium lactate fortification with different packaging on total quality, total bacteria, peroxide number, water content and pH value of ungkep broiler meat stored at a temperature of -18°C for 6 weeks. The materials in this study are broiler fillet meat, shallots, garlic, turmeric, ginger, longan, pecans, coriander, sugar, salt, palm oil, monosodium glutamate, and nano calcium lactate (NCaL) egg. This research uses a Complete Random Design (RAL) pattern in the same direction with 6 treatments. The treatment in this study is P1 (0% NCaL polyethylene packaging), P2 (0% NCaL nylon packaging), P3 (0% NCaL retort pouch packaging), P4 (0,6% NCaL polyethylene packaging), P5 (0,6% NCaL nylon packaging), P6 (0,6% NCaL retort pouch packaging). The tested parameters consist of total bacteria, peroxide number, water content and pH value. The ungkep broiler meat sample was observed at the age of 6 weeks with 4 repetitions. The data of the total bacteria, peroxide number, water content and pH value are analyzed with the analysis of the same-way pattern variation and if there is a difference in the average, it will be tested further with the Duncan's Multiple Range Test (DMRT). The results showed that nano calcium lactate fortification of eggshells and different packaging significantly affected the total plate count and peroxide value of braised broiler meat. Different treatments affected the total plate count and peroxide value but did not affect the water content and pH value of braised broiler meat. The conclusion of this study is that braised broiler meat fortified with nano calcium lactate at a level of 0.6% eggshell with retort pouch packaging is a good packaging with a total plate count.

Keywords: *broiler chickens, packaging, total bacteria, peroxide value, moisture, pH value, nano calcium lactate, ungkep*