Effect of Addition of Nano Calcium Lactate Shell Eggs on the Chemical Quality of Super Native Chicken With Seasoning and Local Spices

Purnama Indrasami

Poultry Agribusiness Study Program Animal Science Department

ABSTRACT

This study aims to determine the effect of adding nano calcium lactate to egg shells on the chemical quality of super native chicken meat marinated with local herbs and spices. The research material consisted of super native chicken meat, sugar, salt, pepper, chili powder, garlic, cinnamon, palm oil, lime juice, monosodium glutamate, ginger powder, and nano eggshell calcium lactate (NCaL). The addition of NCaL included P0 (0%), P1 (0.15%), P2 (0.30%), P3 (0.45%), and P4 (0.60%) which was calculated from the total marinade. Super native chicken was marinated for 60 minutes at room temperature and then placed in a showcase for 20 hours before being tested. Parameters observed were water, protein, fat, carbohydrate, ash, and calcium content. Each treatment consisted of 3 replications. The data from the chemical quality test were analyzed using unidirectional pattern variance analysis and if there was a very significant difference (P < 0.01), it was further tested with Duncan's Multiple Range Test. The results showed that the addition of nano calcium lactate in eggshells to a level of 0.60% could affect the chemical quality of marinated super free-range chicken meat. The addition of nano calcium lactate in egg shells can reduce the water content of 0.47% and 0.89% fat and increase the protein content of 1.17%, ash 0.09%, and calcium 81.9% but does not affect the carbohydrates of super native chicken meat marinated.

Key words: local herbs and spices, super native chicken meat, chemical quality, marinade, nano calcium lactate egg shells