The Effect of Pomegranate Peel Powder (*Punica granatum L.*) in Feed on the Physical Quality of Broilers Chicken Meat

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ABSTRACT

This study aimed to determine the effect of pomegranate peel flour on the physical quality of broiler chicken meat. A total of 80 day-old chicks were randomly assigned to five treatments and four replicates, with each replicate containing four chicks. The study employed a one-way completely randomized design. The treatments in this study were P0 (control diet), P1 (99% commercial feed + 1% pomegranate peel powder), P2 (98% commercial feed + 2% pomegranate peel powder), P3 (97% commercial feed + 3% pomegranate peel powder), P4 (96% commercial feed + 4% pomegranate peel powder). The parameters observed in the study were cooking loss, water-holding capacity, pH value, and tenderness. The research data were analyzed using Analysis of Variance (ANOVA), and when significant differences were found among treatments, the Duncan Multiple Range Test was applied. The results showed that the use of pomegranate peel powder had a significant effect ($P < 0.05$) on pH, with mean values ranging from 5.46 to 5.75, but had no significant effect ($P > 0.05$) on cooking loss, water-holding capacity, or tenderness. This study concludes that the use of 1% and 4% pomegranate peel powder effectively improves the pH of broilers chicken meat but has no effect on cooking loss, water-holding capacity, and tenderness.

Keywords: *broilers, pomegranate peel powder, physical quality of meat*