

THE EFFECT OF NUTMEG (*Myristica fragrans*) ESSENTIAL OIL ADDITION IN FEED ON PERFORMANCE AND VISCERAL ORGANS IN BROILER CHICKEN

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ABSTRACT

The reserch was conducted to know the effect of nutmeg essential oil myristica fragrans addition in feed on performance and visceral organs of broiler chicken. This study used 160 day old chick (DOC) broiler with Lohmann W99 Grade-A male strain, divided into 4 treatments and reared for 28 days in a poultry cage battery. Each treatment consisted of 5 pens as the replications and each replication consisted of 8 chickens. The treatment group consisted of basal diet without addition (P1; negative control), basal diet + *virginiamycin* antibiotic 2500 ppm (P2; positive control), basal diet + nutmeg essential oil 300 ppm (P3), and basal diet + nutmeg essential oil 600 ppm (P4). Data observed include feed consumption, body weight, body weight gain, feed conversion, performance index, persentage weight of the crop, proventriculus, gizzard, small intestine (duodenum, jejunum, ileum), cecum, large intestine, liver, heart and persentage weight of the pancreas broiler chicken. The data were analyzed statistically with One way design and if it showed a significant difference, it was continued with Duncan's Multiple Distance Test. The results showed that the addition of 300 ppm and 600 ppm of nutmeg essential oil had no significant effect ($P>0.05$) on the performance of broiler chickens including feed consumption, body weight, body weight gain, feed conversion, and performance index. The addition of 300 ppm of nutmeg essential oil significantly decreased ($P<0.05$) the percentage of organ weight of proventriculus and the addition of 600 ppm of nutmeg essential oil significantly increased ($P<0.05$) the percentage of liver of broiler chickens. The conclusion that can be drawn from the results of the study is that the addition of 300 ppm and 600 ppm of nutmeg essential oil (*Myristica fragrans*) in feed has not been able to significantly improve broiler performance and has no negative effect on internal organs of the Lohmann W99 Grade-A male broiler.

Keywords : Broiler chicken, Esensial oil, *Myristica fragrans*, Performance, Visceral organs.