

## **USE OF CITRIC ACID AND SELECTED ANTIBIOTICS ON THE PERFORMANCES OF BROILER CHICKS AT BROODING STAGE**

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Even though, the commercial broiler production is one of the successful enterprises, spread out of diseases slows down the continuous development of the industry. Reduction of mortality especially, during day 1-14 enhances the flock performance efficiency index (PEI). Therefore, varieties of potentially useful growth promoters are used in brooding stage to increase the performances and to reduce the diseases in broiler chicks. Thus, this study was conducted to investigate the use of citric acid and selected antibiotics on the performance of broiler chicks during first ten days.

Total of six thousand day old broiler chicks were selected and allocated into twelve brooders as five hundred birds per brooder. Four treatments were used in the study; as T1 (control, without any additives), T2 (1g of Citric acid), T3 (1g of Citric acid + 1g of Amoxicillin, + 1ml of Enrofolaxacina), and T4 (1g of Amoxicillin + 1ml of Enrofolaxacina). Each treatment was replicated three times and given to the broiler chicks with drinking water. The average body weight, feed intake and number of dead birds were recorded, while feed conversion ratio (FCR), body weight gain and mortality were calculated. Data were analyzed by SAS system and subsequently, means of the treatments were compared using Duncan's Multiple Range Test.

Results revealed that, average body weight, feed intake, body weight gain, FCR and mortality were significantly different ( $p < 0.05$ ) among the treatments. Highest average body weight, body weight gain and feed intake, lowest FCR and mortality were recorded in T3. The study further showed that, treatment with combination of citric acid and antibiotics (T3) was the best treatment where as, T2 and T4 also exhibited considerably better performance compared to control. Finally, it can be concluded that, there is a positive effect of combination of citric acid and selected antibiotics on the performances of broiler chicks at brooding stage.

**Key words:** Antibiotics, Broiler chicks, Citric acid, FCR, PEI, Performance