

Performance and Carcass Characteristics of Broiler Chicks Fed Diets Supplemented with Some Medicinal and Aromatic Plants

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Abstract: *This study was conducted to investigate the effects of using Eucalyptus , Pamegranate , Tilia and Thyme as natural biological feed additives on growth performance, carcass traits, blood constituents and economical efficiency of broiler chicks. Two hundred and seventy unsexed Arbor-Acres broiler chicks at one week of age were divided into nine treatments (30 bird each); each treatment contained 3 replicates of 10 birds each. The experimental treatments were:*

Treatment 1 the control diet (free from medicinal and aromatic plants).

Treatments 2 and 3 the control diet + 0.1 and 0.2% Eucalyptus(E).

Treatments 4 and 5 the control diet + 0.1 and 0.2 % Pamegranate(P).

Treatments 6 and 7 the control diet + 0.1 and 0.2% Tilia(T).

Treatments 8 and 9 the control diet + 0.1 and 0.2% Thyme(Th).

Chicks fed the diet supplemented with E at the level of 0.1% had the highest values of LBW at 28 and 42 days of age. In general, adding medicinal aromatic plants (MAP) to the control diets improved live body weight gain (LBWG). Chicks fed the diet supplemented with E at the level of 0.1% had the highest values of LBWG at starteing and total period. Chicks fed the diets supplemented with Th at the level of 0.2% and 0.1% had the lowest feed intake (FI) during the periods from 7 to 28 and 7 to 42 days of age. Feeding MAP had no significant effects on feed conversion (FC), carcass characteristics or plasma constituents. Feeding MAP significantly affected moisture ($P \leq 0.05$) and ash ($P \leq 0.01$)% of broiler meat. However, insignificant differences were observed in protein, fat and NFE% of meat. Carcass part significantly influenced ($P \leq 0.01$) protein, fat and ash % of broiler meat. Chicks fed diet supplement with E at the level of 0.1% had higher growth rate (GR) at the two periods. Obtained results indicated that mortality % decreased in chicks fed starter and finisher diets supplemented with MAP additives. Economical efficiency: EEF values at 6 weeks of age improved in chicks fed the diets supplemented with MAP additives (except T 0.1 % and Th 0.1 %) as compared with unsupplemented one. It was concluded that 0.1% E can be used as a natural feed additive in broiler diets to obtain best performance and highest income per chicken.