Effects of GUANIDINOACETIC ACID ON THE PERFORMANCE OF BROILER BREEDERS AND ITS EFFECT OF THE PROGENIES

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An experiment was carried out to determine the effect of guanidinoacetic acid (GAA) on the performance of broiler breeders and its effect on the progenies. A hundred and twenty Cobb's broiler breeders of 50 weeks of age were allocated in a completely randomized design. Five levels of GAA (0.00%; 0.04%; 0.08%; 0.12% and 0.16%) and eight replicates of four birds each were used. To determine the performance of the progenies originated from broiler breeders fed with different levels of GAA, 360 male one day old broiler chicks, allocated in a completely randomized design, were fed with diets based on corn and soybean meal until 42 days of age. The levels of GAA did not affect the production of eggs and the weight of newborn progenies. For the broiler breeders, the hatchability and fertility were significantly improved (P<0.05) by the levels of GAA supplemented. The feed conversion of progenies originated from broiler breeders were significantly improved (P<0.05) by supplementing GAA. Considering the result of this trial, the levels of 0.08% to 0.12% of GAA improved the hatchability of the broiler breeders.