Influence of varying dietary energy levels supplemented with ginger or probiotics on performance of broiler chickens under a semiarid environment
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Target Audience: Poultry farmers, Nutritionist, Researchers

Abstract
This study evaluated the effects of varying dietary energy levels supplemented with ginger or probiotics on performance and carcass characteristics of broiler chickens in a semi-arid environment. A total of one hundred and forty four (144) Arbor acre day-old broiler chicks were randomly allotted to six (6) dietary treatments with four replicates of six chicks each. Three metabolizable energy levels (3100, 2900, and 2700 ME/kcal/kg) were supplemented with either ginger (5g/kg) or probiotic (0.505g/kg) to give six experimental diets for the starter and finisher phases respectively. The experimental diets were fed ad libitum throughout the eight week experimental period. Feed intake increased ($P<$0.001) with decreasing dietary energy from 3100 to 2700Kcal/kg. The medium energy diet gave greater ($P<$0.05) live weight, weight gain, feed conversion ratio (FCR) and lower mortality. The medium energy diet had better ($P<$0.001) dressing percentage compared to the other levels. Ginger sustained higher ($P<$0.001) dressing percentage than probiotic. While the interactive effects of energy levels with either ginger or probiotics showed that the low dietary energy combination with probiotics gave the lowest ($P<$0.001) dressing percentage. It was concluded that feeding broiler chickens a medium energy (2900Kcal/kg) diet with ginger as an additive improves growth performance and carcass yield of broilers under a semi-arid environment.

Keywords: Broiler chickens, energy, ginger, probiotic