Probiotic supplementation on *Ipomoea batatas* basal diet on performance, carcass quality and plasma parameters of broilers exposed to heat stress

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The aim of this experiment was to study the benefits of probiotics as a feed additive on local diets for broiler chickens exposed to heat stress. The experimental design used was a completely randomized design in a 2 x 2 x 2 factorial design, two diets (local vs commercial), heat (heat stress vs not), and probiotics (with vs without). A total of 400 broiler chickens were allocated into 8 treatments. Each treatment was replicated 5 times with 10 chickens per treatment. Body weight, weight gain, feed intake and feed conversion ratio were calculated per week. Carcass weight, abdominal fat, cholesterol level and blood pH were measured at the end of the experiment. At 6 weeks of age, 80 samples (10 chickens from each treatment) were killed to analyze the quantity and quality of the carcasses. Dietary probiotics had significant effects on weight gain (P<0.01) and feed conversion (P<0.01) and also reduced abdominal fat (P<0.05) and blood cholesterol (P<0.05) significantly. Commercial feed gave significantly better performance (P<0.05) than local feed, but in terms of carcass quality, local feed gave lower abdominal fat and lower cholesterol level (P<0.05) than commercial feed. It could be concluded that providing dietary probiotics could improve broiler performance and carcass quality under heat stress conditions.

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