**EFFECT OF SODIUM BUTYRATE AND MEDIUM CHAIN FATTY ACIDS ON PERFORMANCE AND SALMONELLA SHEDDING IN BROILERS**

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The present study was conducted to compare the effect of one additive based in sodium butyrate protected with sodium salt of coconut fatty acids distillates (DICOSAN+) on performance and *Salmonella* shedding in broiler chickens. A total of 612 male 1-day old broilers (Ross) were randomly distributed into 2 treatments with 6 pens of 51 chicks per pen. The dietary treatments were: CON, diet with no additive addition and DIC+, CON diet with DICOSAN+ at 1.5kg/tn, 0.5 kg/tn and 0.5 kg/tn, in the pre-starter (0-14d), starter (15-28d) and finisher (29-34d) phase, respectively. At 14d, 28d and 34d body weight (BW), feed consumption (FC) and mortality were recorded. Furthermore, at day 0 and day 34 samplings of *Salmonella* were performed by dragging swabs throughout the poultry room floor/litter. Data were analyzed with one-way ANOVA. Birds fed DICOSAN+ had significantly higher BW at 14d (519 vs 525g; P<0.05), 28d (1584 vs 1672g; P<0.05) and 34d (2136 vs 2192g; P<0.05). No significant differences between CON and DIC+ were found in FC, FCR, and mortality. On the other hand, *Salmonella* serotype C (Hadar) was found in the room floor before the chicks were placed (day 0). At day 34 *Salmonella* was found only in the CON group floor. In conclusion, DICOSAN+ improved broilers body weight and reduced the probability of *Salmonella* contamination in the litter.

**Key Words:** protected sodium butyrate