



Supplementation of a combination of lysolecithins, a synthetic emulsifier and monoglycerides to diets of broilers containing phytase in super dosing, on performance and profitability

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Super dosing of phytase is becoming an increasingly popular strategy to allow a complete phytate destruction in the digestive tract, which can lead to an increase in inositol secretion in the gizzard. As such, super dosing may result in performance enhancement due to both reduced antinutritive factors from the phytate as well as the increased presence of inositol. To date the impact of supplementing a combination of lysolecithins, a synthetic emulsifier and monoglycerides (LEX) to diets with phytase in super dosing had not been yet explored. Therefore, a scientific study was designed to elucidate this impact on growth performance and subsequent production profitability of broiler chickens. A total of 576 one-day-old males Ross 308 broilers were randomly assigned to two dietary treatments for 42 days: Control (birds fed standard diets with phytase super dosing -1500 FTU/g) and LEX (birds fed Control + 500 ppm of LEX). Each treatment consisted of 14 pens of 24 birds each. Diets were pelleted and fed in 3 phases: starter (0-14 d), grower (14-28 d) and finisher (28-35 d). The experimental unit was the pen/replicate. Primary zootechnical data: body weight (BW), average daily gain (ADG), average daily feed intake (ADFI), feed conversion ratio (FCR) and mortality were determined as mean pen values. An economic analysis was carried out to determine the income over feed cost of both treatments. FCR tended to be lower for birds fed LEX compared to Control from 15 to 28 days ($p=0.0657$) and for the overall trial period ($p=0.0681$). The income over feed cost of the LEX treatment was 31.3 €/1000 birds higher compared to Control. These findings indicate, that adding LEX to diets on top of a phytase in super dosing, can improve FCR, delivering a positive economic impact.