

TITLE: EVALUATION OF THE ZOOTECHNICAL PERFORMANCE OF PROBIOTIC PRODUCED FOR BROILER CHICKENS

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ABSTRACT:

Probiotics are great allies of the farming industry for helping and intensifying the colonization of important bacteria for the conservation of the animal intestinal health, improving the zootechnical parameters, the animal digestibility and also reducing the proliferation of pathogens. This work aimed to determine the efficiency of the probiotic produced by AGRIVALLE company to improve the zootechnical performance of broiler chickens in different animal growth stages. In this work was used a completely randomized statistical design, and, for that, a total of 192 one-day-old Cobb500 broiler chicks were separated in 16 boxes according to two treatments, T1: feed without probiotic (control) and T2: feed with 0.1% Agrivalle probiotic composed of *Bacillus* spp. and MOS, and both treatments received water *ad libitum*. Each treatment presented eight replicates (8 boxes) with 12 birds each one. The experiment was evaluated in three periods: initial phase (1 to 14 days), growth phase (15 to 28 days) and termination phase (29 to 42 days). It was evaluated the zootechnical performance through the parameters of feed intake, feed conversion, weight gain and food efficiency. The results shows that there was an improvement in all evaluated parameters, evidencing that in the treatment with probiotic (T2) the animals consumed less feed for the production of 1kg of live weight, being this 3.48% more efficient than the control treatment (T1), confirming a better feed conversion with probiotic treatment (T1). In a large-scale commercial production, taking into account a production of 40 thousand birds, using the data obtained from the feed conversion with probiotic AGRIVALLE of this study, a producer would have a saving of 10.800 Brazilian currency per shed. The probiotic was economically advantageous, resulting in lower feed intake, better feed conversion and greater weight gain when compared to control feed. This improvement in zootechnical performance helps the aviculture, contributing to the reduction of expenses, especially in animal nutrition, which is currently the most costly item of poultry production.

Keywords: broiler chickens, probiotic, zootechnical performance