

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## PERFORMANCE AND BEHAVIOR OF BROILERS SUBMITTED TO STIMULATION WITH ROBOT USE

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The objective of this study was to evaluate the efficiency of the use of a robot in the stimulation of broilers and their influence on average weight (AW), frequency of visit to the feeder (FVF) and mortality to the fifth day of life. The installations had dimensions of 12 x 12.5 m, with the floor covered with wood shavings, with inner canvas, system of heating and climatization by furnace and fans. Two experiments were carried out with two different batches using broilers of the Cobb commercial line with a mean input weight of  $40 \pm 0.9$  g. Two treatments were used: the stimulus with the use of an electric robot (SR) suspended by a rail and the producer stimulus to raise and to circulate through the environment (SP), with two repetitions by treatment. The animals were randomly distributed to the treatments and separated by a partition. For performance evaluation, 10% of the animals present in each replicate were weighed at the time of lodging and at the end of the fifth day of life. The evaluation of FVF was performed by counting animals in the feeder in each treatment at a 10 minutes interval for 2 hours, totaling 12 evaluations / day, during the five days of experiment. The number of broilers killed in each treatment during the experimental period was also recorded. The variables were submitted to analysis of variance with significance level of 5% and, when there was significant difference, the averages were compared by the *Tukey* test. Among the two treatments, the stimulation by the robot (SR) provided a significant increase of 6% (153.8 g) in the AW compared to the SP treatment (145.03 g), the same behavior was observed for weight gain during the period (22.76 vs 21.00 g day<sup>-1</sup>). However, there was no statistical difference between the treatments for the mortality of the animals, but the SR treatment showed a reduction of approximately 41% compared to the SP treatment (51.5 vs 30.5 animals). The behavioral evaluation regarding the number of animals in the feeder did not change independently of the treatment tested (238.83 and 211.00 for SR and SP, respectively). These results indicate that the stimulation for the robot provides better results regarding productivity and mortality during the period tested.

**Keywords:** behavior, broiler production, mortality, weight gain

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