

# Anticoccidial sensitivity test for *E. maxima* in a broiler company in Northeastern Brazil

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Coccidiosis is a recurring problem faced by companies producing broilers. Exhaustive use of certain anticoccidial agents without conscious rotation of product classes has led to resistance. The objective of this work was to evaluate the response of the main control molecules to coccidiosis, in a broiler company in the Northeast of Brazil. The tool used was the AST - Anticoccidial sensitivity test, a scientific method to support the differentiation of these molecules by field-isolated *Eimerias*. The effectiveness of anticoccidials was evaluated by analyzes of weight gain (WG), feed conversion (FC) and mean lesion scores. Feces containing *E. maxima* oocysts were collected in three units and sent to the laboratory for preparation of the challenge inoculum. The test used 240 birds (1-day-old chicks in suspended cages), with the following experimental design: 24 birds per treatment and 10 treatments (T01- negative control, T02- positive control, T03- lasalocide, T04- nicarbazin+salinomycin, T05-decoquinate, T06- nicarbazine+senduramycin, T07-monensin, T08-salinomycin, T09- narasin+nicarbazine, T10- nicarbazine). At 12 days and until the end of the experiment, the birds received their feed medicated with different anticoccidials. At 14 days, birds from T02 to T10 received the inoculum of *E. maxima* with about 300,000 oocysts (1 mL/bird). At 20 days, the birds were weighed, as well as the leftover feed, for feed conversion calculation purposes. After that, they were sacrificed, and the lesion score was evaluated at necropsy. It was observed that T08 (salinomycin) and T09 (narasin + nicarbazin) had the worst results, showing no statistical difference from T02 (positive control). In the FC parameter, T05 (decoquinate) presented the best result, being the only one statistically different from T02 (positive control). The reflection of this better conversion can also be seen in the WG, since T05 (decoquinate) was the closest to T01 (negative control). Through these results, we have an indication of agents that can compose future programs in this company, with the objective of achieving better zootechnical indicators and, consequently, financial return.