

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

EFFECTS OF FERTILE EGGS WITH *SALMONELLA* Heidelberg TREATED BY SHELL WITH JABUTICABA ETHANOLIC EXTRACT ON HATCHING PARAMETERS

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To reduce contamination in shell of fertile eggs by pathogens, several industries have adopted disinfection procedures using chemical compounds. In this context, plant extracts could be used because they have many antibacterial substances. The objective of this study was to evaluate the influence of the ethanolic extract of shells and seeds of *Myrciaria cauliflora* (jabuticaba) against the incubation parameters of fertile eggs contaminated by *Salmonella* Heidelberg. Three hundred twenty fertile eggs were randomly distributed in four treatments with eight repetitions each and incubated in groups of 10 eggs per repetition. The treatments were: T1 – shell inoculation with 0.85% saline solution - negative control (CN); T2 – shell inoculation with vegetal extract (EJ); T3 – shell inoculation with *Salmonella* Heidelberg (SH); T4 – shell inoculation with *Salmonella* Heidelberg and plant extract (SH + EJ). The *Salmonella* Heidelberg inoculation and the use of the extract were performed on the 11th day of incubation. The eggs inoculated with the bacteria received 0.85% saline solution containing 3.8×10^7 CFU / mL and / or 0.3 mL of the plant extract, according to the experimental treatment. The hatchability of fertile eggs was calculated by the number of hatching eggs, multiplied by 100, divided by the number of fertile eggs. The eggs that did not hatch were submitted to embryo diagnosis to determine the period of embryonic mortality. The results were submitted to analysis of variance and the means were compared by the Tukey test at 5%. The vegetal extract had a deleterious effect ($P < 0.05$) on hatchability and embryo mortality, independent of *Salmonella* inoculation, probably due to the obstructive effect of the extract on the shell pores. It was also observed that the inoculated agent did not influence any of the analyzed parameters ($P > 0.05$), because the group that only received the bacterium (SH) presented similar results to the negative control (NC) group. Finally, in this investigation, we were able to demonstrate that the use of ethanolic extract of jabuticaba on the shell of fertile eggs is not viable to promote intense embryonic mortality and to reduce hatchability rates.

Keywords: phytotherapeutics, hatchability, *Myrciaria cauliflora*

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