Review of: "The anti-staphylococcal activity of probiotic-contain gelatin and whey coatings on processed chicken breast"

Jane Viana de Souza

Potential competing interests: No potential competing interests to declare.

The work has scientific relevance and addresses updated improvement techniques for offering safe food to the population.

When reading the manuscript, I suggest clarifying the methodology: whether the solutions were subjected to a temperature of 80 °C before adding the experimental test microorganisms or after insertion, as well as the choice of pathogen insertion after the coating layer and not before the coating layer.

It would also be interesting to clarify the storage temperature of chicken breasts, as this data is relevant for contextualizing the arguments.

In the methodology, it would be important to have added another control with a solution without a test microorganism, since the solution without a test microorganism could have an influence on the results.

We know that the reduction of the S. aureus population is relevant; however, the production of heat-resistant enterotoxin is a concern due to the diseases in humans. It would be important to evaluate the production of enterotoxin during the storage of the product in the experiment.

In the discussion, I recommend pointing out suggestions as to the reason for the population increase of S. aureus at times 30 days and 45 days. Would it be the decline phase of the test microorganisms (lactic acid bacteria) with a consequent increase in pH, making it optimal for S. aureus, or the solid establishment of the formation of a favorable biofilm?

All constructive criticism mentioned above aims to improve the manuscript and the applicability of the study. I wish you a good publication!