

TRANSFER OF *SALMONELLA* DURING SLICING OF TURKEY BREAST-BASED PRODUCTS

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The slicing process of meat is well known to be one of the vehicles of cross-contamination in the ready-to-eat meat industry. *Salmonella* is commonly associated with cross-contamination on these environments. Based on the increasing in demand for turkey breast-based deli meats, this work was aimed to assess and quantify the transfer of *Salmonella* during slicing of these products. Two different formulations, distributed by the main manufacturers in Spain, were submitted to a slicing procedure, with a domestic slicing machine. The slicer blades were previously contaminated with 0.5 mL of a *Salmonella* Enteritidis culture ($\approx 10^8$ UFC/mL), simulating a worst scenario of cross-contamination. Slices were analyzed microbiologically by plate count methodology with selective agar medium (XLD, Xylose lysine deoxycholate). Data were transformed to log (cfu/cm²) and expressed versus time. The transfer coefficient was also estimated (%). The pathogen could be detected in all the 20 slices analyzed of each product. Number of cells transferred per slice decreased logarithmically throughout the 20 slices. The first slices had the highest contamination levels, and the risk of illness would be higher after eating these in comparison with the subsequent slices. Similar trend was observed by other authors while studying the transfer of food-borne pathogens to meat products during slicing. No significant differences were observed in the transfer of *Salmonella* in the different formulations evaluated ($p \leq 0.05$), though studies show differences between the behavior of this pathogen on slices of the products evaluated during shelf-life.

Keywords: Transfer, *salmonella*, slicing, turkey breast-based products

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