

Title The establishment of critical control points at the washing and air chilling stages in poultry meat production using multivariate statistics

Author M.L. González-Miret, M.L. Escudero-Gilete and F.J. Heredia

Citation Food Control, Volume 17, Issue 12, December 2006, Pages 935-941

Keywords HACCP; Poultry meat; Statistical process control

Abstract

The selection of control points is one of the most important steps in the design of a *Hazard Analysis and Critical Control Points (HACCP)* system. *Total Count*, *Pseudomonas* and *Enterobacteriaceae* are microorganisms frequently analyzed on carcasses in slaughterhouses. Its usefulness can be assessed by means of *univariate* and *multivariate* statistical methods. In this study, the use of these microbiological parameters for verification of the effect of the stages of washing with pressurized water and air chilling has been evaluated. It makes clear that multivariate statistics appears as a valuable tool to check which points and stages of the process must be controlled, demonstrating that the washing stage produces significant decreases in contamination (so it must be considered a CCP). The air chilling stage maintains the decrease in the contamination as the carcasses come out of the washing process. This is due to the control of temperature under adequate limits. The chiller air temperature would be considered a CCP in a HACCP system.