

Outline

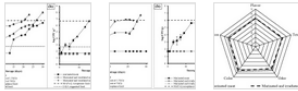
Abstract

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Combined effects of marinating and γ -irradiation in ensuring safety, protection of nutritional value and increase in shelf-life of ready-to-cook meat for immunocompromised patients

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Abstract

The aim of this study was to evaluate the effect of combining marinating and γ -irradiation at doses of 1, 1.5 and 3 kGy on *Escherichia coli* O157:H7, *Salmonella typhimurium* and *Clostridium sporogenes* in raw meat packed under vacuum and stored at 4 °C and to estimate its safety and shelf-life. Further, the effect of combined treatments on sensorial, nutritional values (lipid oxidation, concentration of thiamin and riboflavin) and color was evaluated. The study demonstrated that the use of marinade in combination with a low dose of γ -irradiation (1.5 kGy) could act in synergy to reduce to undetectable level of pathogenic bacteria and increase the shelf-life of ready-to-cook meat loin without affecting its sensorial and nutritional quality.