Title D-radiation Values of Salmonella DT104 Inoculated in Ground Beef and Pork and on Radish Sprouts

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Abstract

Multi-resistant *Salmonella Typhimurium* DT104 infections have been associated with the consumption of ground beef. Since irradiation in the United States is an approved intervention for removal of bacteria from ground beef, the rational destruct values were determined for ground beef (83% lean) and the study also included determining the D-value with ground pork (90% lean) and radish sprouts. Prior to inoculation with a mixture of six *Salmonella* DT 104 strains, all samples were irradiated to remove the background microflora. The D-radiation values were determined b use of a gamma source at 4°C. The D-values for the *Salmonella* DT104 in the ground beef and pork and on the radish sprouts were 0.51, 0.56 and 0.55 kGy, respectively. The D-radiation values for the DT 104 strains are within the reported range for irradiation destruction of other *Salmonella*-contaminated raw meat and produce products.