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Sensitivity of the probiotic cultures curing salts (NaCl, $NaNO_2$)

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The incorporation of probiotic bacteria to food products represents a major technological challenge because of the known sensitivity of these microorganisms to salt, spices and other substances used in its formulation. The objective of this study was to test the ability of probiotic *Enterococcus faecium* CRL 183, *Enterococcus faecium* CRL 30 and *Lactobacillus acidophilus* CRL 1014 to survive the concentration of curing salts commonly used in fermented meat products. Cultures were tested for resistance to sodium chloride added to M17 or MRS agar at concentrations of 1%, 1.5%, 2%, 2.5% and 3%. Resistance tests were performed to nitrite by the same procedure using concentrations of 80, 100, 120, 150 and 200 ppm added to M17 or MRS agar. The *E.faecium* (CRL 39 183 and CRL) maintained 10^9 UFC/mL order for all concentrations of sodium chloride and nitrite, as the *L. acidophilus* CRL 1014 order 10^8 UFC/mL maintained. The controls carried out for all crops were around 10^9 CFU / ml. Thus, we conclude that microorganisms are resistant to salt concentrations used and still maintained a concentration suitable for carrying probiotic effect.

Biography

Mariana Nougalli Roselino has graduated in Pharmacy-Biochemistry in 2008 from Sao Paulo State University and will complete her Master Degree at the age of 27 years from the same University. Her Master's studies began in March 2010 and will be finalized in June 2012 at Probiotic Research Laboratory, Department of Food and Nutrition, School of Pharmaceutical Sciences at the University in Sao Paulo. She has published 3papers in renowned journals and 15 abstracts in scientific events.

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