

Title Modelling the effect of different sterilisation treatments on antioxidant activity and colour of carrot slices during storage

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Abstract

The effect of F_0 treatment time (min) and storage on the antioxidant activity and Hunter colour parameters (L^* , a^* , b^*) of carrot slices was investigated. Carrot slices were sterilised for 0 (control), 3, 15 and 50 min and subsequently stored for 0, 3 and 6 months. Significant differences were observed in colour values of carrot slices with no significant difference beyond F_0 treatment of 3 min. Regression modelling was used to investigate the main effects of treatment time and storage. Treatment time and storage period was found to be significant. Predicted models were found to be significant ($p < 0.05$) with low standard error and high coefficients of determination (R^2). This study proposes the predicted models for quality parameters of sterilised carrot slices.