



Effect of thermal treatment on antioxidant activity and colour of carrot purées

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Abstract Total antioxidant activity, levels of bio-active compound groups and instrumental colour of carrot purée subjected to thermal treatment (70°C/2 min) were measured. The method applied to the dosage of ascorbic acid was with 2,6-diclorophenolindophenol. Total phenols (TP) in purée were determined using the Folin-Ciocalteu method and antioxidant activity by the use of DPPH free radical method. The colour of the samples was measured using a Hunter-Lab colour meter. Heat treatment caused a rapid decrease in ascorbic acid. Phenolic contents were in general unaffected by thermal treatment. Colour parameters were significantly affected by thermal treatment. This provides a helpful tool for understanding the effect of processing on colour variation of carrot purée in a broader spectrum. Industrial relevance: This research paper provides scientific evidence of the influence of thermal treatments in retaining important bioactive compounds.

Keywords: antioxidant activity, carrot, total phenols, colour
