

ABSTRACT

Thermal Processing and Rheological Characterization of Canned Pumpkin Puree

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A canned pumpkin puree was produced from the ‘smooth skin’ variety of pumpkin. The canned puree was processed in a still retort at 121°C for 25, 30, 35, 38, and 40 minutes and the F_0 values calculated using the general method were found to be 0.9, 5.1, 7.3, 10.8, and 14.2 minutes respectively. Rheological measurements done found that the puree is shear thinning and obeyed the power law model for shear rates employed. Differences ($P < 0.05$) in rheological properties were found between the unprocessed and the puree processed for 40 minutes. The colour of the puree changed as processing time was increased. A focus group selected the puree processed for 30 minutes and 40 minutes on which acceptance and preference testing was done. An untrained panel of 50 scored differences in the colour, flavour and overall acceptability of both purees.

Keywords: Les – Ann Kay – Simone Brown; Thermal Processing; Rheological properties; Power law model.