ABSTRACT

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THE EFFECT OF ADDITION OF LEMON AND CITRIC ACID TO THE QUALITY OF PUREE FROM PAPAYA (*Carica papaya* L.)
(xv + 172 pages : 31 tables, 19 figures, and 19 appendices)

Papaya puree is one of the processing method of papaya fruit which can be added by food additive like lemon and also citric acid food grade. This research was conducted to increase the shelf life of papaya and remove the unpleasant smell of papaya. The effect of blending time towards the viscosity, color, pH, vitamin C, Total Plate Count, lycopene, and total phenolic compound was analyzed. The result showed that the increase of blending time significantly decrease the viscosity, pH, Total Plate Count, vitamin C, lycopene, and total phenolic content but not significantly affected the color of papaya puree. Since mixing generates heat. The research also conducted to know the effect of addition of lemon to quality of puree from papaya Bangkok puree and citric acid food grade to quality of puree from papaya California puree. Addition of lemon to papaya Bangkok puree can improve the vitamin C and lycopene content as well as sensory analysis. But it decreases the viscosity and Total Plate Count. And no effect to the color analysis. Papaya California puree added with citric acid significantly improved the color, lycopene content, and sensory analysis as well as decrease in Total Plate Count, but not significantly affected the viscosity and vitamin C in papaya California puree. It was shown from the result of HPLC analysis that the highest concentration of β-carotene (1.808 ppm) of papaya Bangkok puree was found with blending time 30 seconds and addition of lemon to pH 3 while the highest concentration of β-carotene (3.588 ppm) of papaya California puree was found with blending time 30 seconds and addition of citric acid food grade to pH 3.

Keyword: papaya puree, blending time, lemon, citric acid food grade, viscosity, β-carotene