

SENSORY PROFILE AND QUALITY ANALYSIS OF TAMARILLO JAM (*Solanum betaceum* Cav.) WITH ALBEDO SUBSTITUTION OF POMELO ORANGE (*Citrus maxima* L. Merr)

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Abstract

Background - Jam is a semi-wet food made from fruits with added sugar. Tamarillo (*Solanum betaceum* Cav.) is one of the fruits that is still rarely used as a processed product, usually this fruit is only processed into juice.

Purpose - This study aims to diversify jam products from tamarillo fruit and utilize pomelo albedo waste, study and analyze the effect of the comparison of tamarillo pulp with pomelo albedo pulp on the sensory and hedonic property profiles of tamarillo jam.

methodology - The research design used was a Completely Randomized Design (CRD) with one factor, namely the comparison of tamarillo pulp and pomelo albedo pulp with four treatment levels, namely (100%: 0%), (85%: 15%), (70%: 30%), (55%: 45%). Data analysis used was ANOVA with Duncan's Advanced Test with a 95% confidence interval.

Findings - The selected jam was obtained in the treatment (85%: 15%) with a formulation of 85% tamarillo pulp and 15% pomelo albedo pulp. The results of the sensory profile analysis of tamarillo jam with the addition of pomelo orange albedo showed that the product was purplish red in color, had a distinctive tamarillo aroma, a sweet and sour taste, a non-bitter aftertaste, a soft texture in the mouth, easy to spread, and overall had good quality and was liked by the panelists.

Originality - In 100 grams of fruit that can be consumed from tamarillo contains 1.4-2 mg protein, 0.1 - 0.6 mg fat, 10.3 grams carbohydrates, 1.4-4.7 mg fiber, 540-5600 µg vitamin A, 2 mg vitamin E and 15 - 42 mg vitamin C, and contains 80-90 grams of water (Chen, 2022). Therefore, post-harvest handling is needed to extend the shelf life of this fruit (Elik et al., 2020). One way that can be done is to process fresh tamarillo into processed products. Currently, tamarillo processing is still limited, usually only processed into juice or consumed directly (Patulak, 2022). One way to diversify fruit processing is through making jam (Jagtian, 2015; Hastuti et al., 2021; Hastuti et al., 2023) by adding pomelo albedo as a source of pectin.

Keywords: Albedo of pomelo, Product diversification, Hedonic, Tamarillo jam, Sensory profile.
