

EGGPLANT JUICE DEVELOPMENT FOR BASE MATERIAL IN VEGETABLE JUICE INDUSTRY

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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The objectives of this research were development of the method to produce eggplant juice, observation of its physicochemical properties, acceptance examination of eggplant juice as base material by consumers, and investigation of phenolic compounds and antioxidant stability of eggplant juice and its formulated products. Eggplant juice was observed at various blanching times: 1.0, 1.5, 2.0, and 2.5 minutes, coupled with the addition of various ascorbic acid concentrations: 25, 50, 75, and 100 ppm. The results indicated that longer blanching time increased pH and viscosity, but decreased turbidity, browning reaction, and antioxidant capacity. Higher ascorbic acid concentration decreased turbidity and browning reaction and increased antioxidant activity. Higher yield was achieved at blanching time 1.5 minutes. The combination of eggplant juice with star fruit juice was more preferred than with carrot juice. Stability analysis of phenols in eggplant juice with 75 ppm ascorbic acid showed no significant losses during 20 days and antioxidant property of eggplant juice fortified with 50 and 75 ppm ascorbic acid obtained the highest activity on day 20 of storage time at 4°C. On day 5-20, juices treated with blanching had higher phenolic compounds and antioxidant activity than without blanching.

Keywords: eggplant, physicochemical properties, antioxidant, phenolic compounds

DEDICATION

I dedicate this thesis to my lovely family, my dearest friends, and my thoughtful lecturers.



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After all, I know that this thesis work is still imperfect. Thus, for the purpose of improving my thesis, I welcome any critics, comments and suggestion from everyone who read it. I hope my thesis could bring benefits in food technology world.

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