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Color Stability of Jambolan (*Syzygium cumini*) Fruit Anthocyanins in a Model Beverage

Puspita Sari¹, Hanny Wijaya², Dondin Sajuthi³, Unang Supratman⁴

¹Dept of Agriculture Product Technology, Faculty of Agricultural Technology, Jember University

²Dept of Food Science & Technology, Faculty of Agricultural Technology, Bogor Agricultural University

³Faculty of Veterinary Medicine, Bogor Agricultural University

⁴Dept of Chemistry, Faculty of Mathematic and Natural Science, Padjadjaran University

E-mail : poespitha_s@yahoo.com

Abstract

Jambolan (*Syzygium cumini*) fruit anthocyanins were characterized for their color stability at different pHs, temperatures, white fluorescent light, and storage conditions, compared to that enocyanine (commercial anthocyanin colorant) and red cabbage anthocyanins. The measured parameters included spectral data, color retention, degradation index, polymeric color, chromaticity color (CIELAB), and half-life followed first-order reaction kinetic. Results indicated that jambolan anthocyanins had lower color intensity than enocyanine-anthocyanin colorant and red cabbage anthocyanins in ranging pH from 1 to 8. Jambolan anthocyanins were relative unstable during heating at 80 and 99°C, exposed to white fluorescent light and storage at room and refrigeration temperature, absence of light. Jambolan anthocyanins showed better stability to all treatments tested than enocyanine. During light exposure and storage treatment, jambolan anthocyanins showed comparable stability to red cabbage anthocyanins.