

Variance of Colour attributes of Kithul (*Caryotaurens*) flour from different growing areas in Sri Lanka

J A A C Wijesinghe*¹, I. Wicramasinghe¹ and K.H Saranandha²

¹Department of Food Science and Technology, Faculty of Applied Sciences,
University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka

²Food Research Unit
Gannoruwa

*Corresponding author: lucky.research@yahoo.com

Abstract

Kithul (Caryotaurens) flour has great gelling properties compared to other flour from plant sources. The colour of flour samples collected from five main Kithul growing districts, namely Rathnapura, Kegalle, Kandy, Matale and Kurunegala district, was analyzed by two methods as Universal Colour Language (UCL) colour chart and Colorimeter (Konica Minolta colorimeter, sensing, Japan). Pale yellow (UCL 89) was the most common colour while yellowish white colour (UCL 92) was not present in Sabaragamuwa province. According to the readings, there were significant differences ($p < 0.05$) among flour samples from five different growing areas for L^ (lightness), a^* (redness) values and b^* (yellowness) values. Kandy (71.56) and Kurunegala (70.18) flours presented higher L^* values than those of other flour treatments. Kithul flour samples from Matale district has the lowest L^* value (65.58). The lowest a^* value (4.54) was observed in Kandy flour samples while the highest values were reported from Kegalle (5.34) and Rathnapura (5.29). In the case of b^* (yellowness) values presented the highest value was observed in flour samples from Kegalle (17.90). The lowest b^* value was reported from Matale (14.29). From the results the flour samples Matale ($\Delta E=34.77$) and Kegalle ($\Delta E=34.65$) had a greater deviation from the standard colour value than the other samples.*

Keywords: Kithul flour, *Caryotaurens*, colour evaluation, L^* a^* b^* values, colorimeter