

Effect of Modification Methods on Gelatinization Properties and Colour Attributes of Kithul (*Caryotaurens*) Flour

J A A C Wijesinghe¹, I. Wicramasinghe², K.H Saranandha³

^{1,2}Department of Food Science and Technology, University of Sri Jayewardenepura, Sri Lanka

³Food Research Unit, Gannoruwa

Abstract: *The aim of the present study is to compare gelatinization properties and colour attributes of modified Kithul (Caryotaurens) flour with three different modification methods to find out the suitability as a new modified flour source for industrial use. Isolated flour was subjected to physical, chemical modifications to generate pre-gelatinized (PG), acid modified (AC) and dextrinized (DX) flour treatments. The colour attributes and thermal analysis of the native (RW) and modified flour were characterized. Results obtained revealed that Lightness (L*) was increased with following modifications than unmodified samples while redness (a*) and yellowness (b*) were reduced. Gelatinization initial temperature and enthalpy were significantly increased in DX flour treatment. All three modifications were significantly affected on gelatinization enthalpy with a comparison of RW flour samples. Finally, DX flour treatment provides most modified characteristics with highest thermal properties.*

Keywords: Kithul, (*Caryotaurens*), Modified flour, Functional properties, DSC, Gelatinization