International Journal of Food Properties
Volume 10, Issue 3, 2007

Physicochemical and Functional Properties of Sour Starches from Different Cassava Varieties

M.O. Onitilo[a], L.O. Sanni[ab*], O.B. Oyewole[a] & B. Maziya-Dixon[b]

Abstract

This article reports our investigation on the effect of cassava varieties on the physicochemical and functional properties of sour starches. There were significant differences ($P < 0.05$) in the ash, pH, amylose, amylopectin, starch damage, total titratable acidity (TTA), sugar, and starch content but not moisture contents of various cassava sour starches. There were no significant differences ($P > 0.05$) in Water Absorption Capacity (WAC), swelling power, and solubility index, while significant differences were recorded in Least Gelation Concentration (LGC) and color at 5% level and granule size at $P < 0.0001$ for cassava sour starches. Peak viscosity values ranged from 333.17RVU (clone 4(2) 1425) to 380.75RVU (clone TME 1). There were significant differences ($P < 0.05$) in pasting properties except for pasting temperature and breakdown.

University of Agriculture, Abeokuta
http://www.unaab.edu.ng