

**CHEMICAL COMPOSITION AND PHYSICAL
PROPERTIES OF AFRICAN STAR APPLE
(*CHRYSOPHYLLUM ALBIDUM*)**

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ABSTRACT

The proximate composition, mineral contents and chemical characteristics of different parts (the peel, pulp and juice) of the African star apple were determined by standard methods. Also, as a first step in developing processing for the fruits, some physical properties were studied. Result of the proximate composition showed that the juice component contained 69.9% moisture, 2.5% protein, 7.4% fat, 19.4% carbohydrate, 3.8% crude fibre, 15.6% Nitrogen free extract and 2.7% ash. The pulp and peel have higher protein contents 8.2 and 6.4%, fat contents 14.3 and 12.1%, carbohydrate contents 68.2 and 64.1%, crude fibre 5.0 and 14.2%, respectively. The vitamin C of the juice was 49.4mg/100L and reducing sugar of 13.4%. The pH of juice was 3.3. The mineral contents of the fruit showed higher values in the peel than either in the pulp or juice. Mn and Fe are the main minerals in the juice and pulp. The physical characteristics of the fruits have values as follows: weight per fruit 31.1-57.1g; volume 25.0-48.0cm³; diameter of the base of fruit 4.2-5.2cm; height 4.3-5.2cm; surface area 58.9-72.7cm². The seed constituted 24.1-27.8% of the weight of fruit while the pulp, peel and juice 52.5- 55.5%, 19.7-22.5% and 3.8-5.3%, respectively.

keywords: *Chrysophyllum albidum*, minerals, physical characteristics, proximate composition.