Tame V T et al., Agrotechnol 2016, 5:2(Suppl)
http://dx.doi.org/10.4172/2168-9881.C1.018



# The effects of harvesting methods of Shea fruit (*Vitellaria paradoxa*) on chemical and physical properties of Shea butter

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The experiment was conducted in the laboratories of the Departments of Chemistry, Adamawa State University Mubi, Nigeria. The treatments for the experiment consisted of two harvesting methods (matured ripened fruits that fell under their own weight and as a result of feeding by birds to the ground and harvested and matured ripened fruit manually harvested from the tree) and it was replicated three times in a Randomized Complete Block Design (RCBD). Data were collected on chemical properties of shea butter which include acid value, free fatty acid, iodine value, peroxide value, saponification value and unsaponifiable matter, while the physical properties include moisture content, yield, melting point, relative density, and refractive index. The data collected were analyzed statistically using Generalized Linear Model (GLM) procedure of Statistical Analysis System (SAS). The means that were significantly different were separated using Least Significant Difference (LSD). The results showed that there were highly significant differences ($P \leq 0.01$) among the harvesting methods. The matured ripened fruits that fell under their own weight and as a result of feeding by birds to the ground and harvested recorded the lowest acid value (2.79), free fatty acid (1.41), lowest iodine value (36.91) and Peroxide value (10.51). The lowest moisture content (0.96%) and highest yield (21.59%) was recorded by harvesting matured ripened fruits that fell under their own weight and as a result of feeding by birds to the ground. Based on the results of this study, it can be concluded that harvesting matured ripened fruits that fell under their own weight gave the best Shea butter quality.

## Biography

Tame V T has completed his PhD from Federal University of Technology, Yola Nigeria. He is the CEO of Agro Professional Care Foundation Yola. He has published 16 papers in reputed journals, 3 books, and has been serving as an Editorial Board Member of *Nigerian Journal of Tropical Agriculture*.

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