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Ellimination of a Precipitated Layer in a Concentrated Baobab (*Adansoia digitata* L.) Squash

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Abstract

Baobab (*A. digitata* L.) is an important forest tree which grows extensively in semi-arid Africa. The African baobab's fruit has twice as much calcium as milk, rich in anti-oxidants, iron and potassium, and contains six-fold vitamin C of an orange. The seeds produce edible oil and fruit dissolved in water which can be used as drink. However, formation of a precipitate at the bottom and top of Baobab fruit-based drink is a common phenomenon appearing immediately after preparation and seems to negatively affect the consumer demand. This study was conducted to find out a treatment that can help eliminate the precipitated layer, which usually occurs in concentrated Baobab squash. Carboxy Methyl Cellulose (CMC) and Gum Arabic were used at different concentrations as stabilising agents. Optimum conditions for the preparation of Baobab squash with regard to fruit soaking ratio and soaking time were identified. The effect of water type on precipitate formation was also investigated. It was found that 0.1 % of CMC and 0.2 % of gum were the best concentrations to eliminate or reduce the volume of a precipitate of the concentrated Baobab squash without affecting the product quality. It was also found that type of water had significant contribution to the formation of the precipitated layer. Distilled water greatly reduced the volume of the precipitate.

Overall, although treatment with CMC and Gum Arabic produced a clear and good appearance squash which lasts for a relatively long storage period, nevertheless, treated squash does not meet the consumer acceptability. From the taste point of view, the results obtained from organoleptic test obviously revealed that the consumer prefers untreated squash. This was attributed to the fact that consumers are much accustomed to untreated squash.

Keywords: *Adansonia digitata*, consumer demand, fruit juice, gum arabic

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