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PaperTitle **Development and Sensory Evaluation of a so called (Negro Yoghurt)A New Fermented Coffe-Milk Beverage**

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ABSTRACT

Milk consumption can increase if the dairy industry also innovates in these areas. In regard with this, foods which can lower risk some disease are increasingly being acknowledged as beneficial for humans. Coffee, the much maligned but undoubtedly beloved beverage, just made headlines for possibly cutting the risk of the latest disease epidemic. It's also established that yoghurt source of mineral and vitamins, strengthens and stabilizes the immune system. Yoghurt organic acids and nutrients, associated with coffee may give a tonic and exiting new beverage with both advantages for human's health.

Objectives: This work aims at preparing yoghurt like fermented coffee-milk beverage. The amount of coffee to add to milk before fermentation in order to avoid starter culture inhibition by caffeine has been screened. Sensorial attributes together with proximate composition, physicochemical attributes, minerals and vitamin content were evaluated.

Method: Coffee powder from 5%, 10%, 15% and 20% were added to milk powder and hydrated with hot water. The mixture were inoculated with a *Streptococcus salivarius* subsp. *thermophilus* and *Lactobacillus delbrueckii* subsp. *bulgaricus* and allow fermenting for 4 to 6 hours at 43°C, followed by a refrigeration period of 12 hours at 4°C. 4 coded samples (5%, 10%, 15% and 20%) and two commercial yoghurts (C1 and C2), were presented to a panel of experienced tasters. The sensory attributes to be evaluated in nine-point hedonic scale were: Taste, Aroma, Color and overall appearance and acceptability. Titrable acidity (TA), pH, proximate composition, Micronutrients and mineral profile was taken in triplicates after maturation. Data were subjected to statistical analysis.

Results: 15% and 20% caffeine were found to inhibit microbial growth. Addition of coffee to fermented milk (yogurt) was found to significantly ($P < 0.05$) be accepted than commercial yoghurt. The 10% yogurt coffee was best accepted with a score of 6 ± 2 for overall acceptability. The pH varies from 3 ± 1 to 4.5 ± 1.2 and Total titrable acidity from $0.85 \pm 0.20\%$ to $0.90 \pm 0.10\%$. The recorded Nutritional Facts were: Water content $86.30 \pm 5.2\%$ to $88.50 \pm \%$; proteins $3.50 \pm 1.6\%$ to $4.0 \pm 1.3\%$; fats 0.5 ± 0.0 to $1.8 \pm 0.2\%$. Fe, Cu, Zn, Ca, and Mg, were found to increase with the coffee levels while Na, k, Ca varies little.

Conclusions: This new milk-coffee fermented product with huge nutritional and health advantages for humans may open new opportunities to coffee and milk beverage manufacturers. However prior to industrial production some physicochemical properties need to be standardise.