NIGERIAN SOCIETY OF BIOCHEMISTRY AND MOLECULAR BIOLOGY (NSBMB)

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BOOK OF ABSTRACTS

30TH ANNUAL SCIENTIFIC CONFERENCE & ANNUAL GENERAL MEETING

THEME

BIOCHEMISTRY AND MOLECULAR BIOLOGY: A CATALYST FOR THE ACTUALISATION OF VISION 20:2020

DATE:

Sunday 24th - Wednesday 27th October, 2010

VENUE:

Multipurpose Hall, Kebbi State University of Science and Technology, Aliero, Kebbi State.

Abstract

and treated samples were analyzed for antioxidant properties (reducing power and free radical scavenging ability), proximate compositions, mineral contents and antinutrient contents (tannin and phytate). The results obtained revealed that the reducing power of bitter leaf (0.53) was significantly decreased with all the processing methods in the study. The free radical scavenging ability of fresh bitter leaf sample (70%) was significantly higher than in other treated samples (53-57%).The protein (6.0 – 7.3%) and moisture contents (81.5 – 84.0%) of variously treated bitter leaf were significantly ($p<0.05$) lower than that of fresh leaves; 8.4% and 84.4%, respectively. Similarly, there was a decrease in the fat content by blanching and abrasion without salt; 1.0% and 0.9%, respectively, while soaking and abrasion with salt caused increases in fat content by 2.2% and 2.3%, respectively. The crude fiber content was lower with soaking while it was significantly ($p<0.05$) higher with abrasion with salt. Blanching and soaking caused a significant ($p<0.05$) decrease in the ash content while abrasions elevated its contents. Also, the various processing methods caused a significant reduction in mineral content of vegetable. The tannin content of *V. amygdalina* leaf (0.6%) was significantly ($p<0.05$) reduced by the various treatments (0.4-0.5%). Similar trend was observed for phytate content with the exception of the soaked sample which showed no decrease. It could therefore be concluded that soaking overnight and blanching caused a significant reduction in the nutritional values of bitter leaf than other processing methods studied.

Key words: Nutrition, processing methods, *Vernonia amygdalina*

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Assessment of Cholesterol Contents in Egg Yolk and Yoghurt Samples.

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Abstract

Ten yoghurt samples obtained from shops and supermarkets in Minna metropolis were analysed for cholesterol content using Ilca's reagent based on Liebermann – Burchard reaction. Except for samples G and H with cholesterol values significantly ($P<0.05$) higher than NAFDAC concentration range (0.55 – 3.50 mg %), all other samples had values within the NAFDAC concentration limit. Five pairs of birds' eggs (local and hybrid), namely: *Gallus domesticus, Melleagris galloparo, Anas platyhyncha, Numid melleagris* and *Columba livia* were also obtained from Minna Central Market and were analysed for cholesterol in the yolk using spectrophotometer at absorbance of 650 nm. Cholesterol concentration of the yolk of local breed *Gallus domesticus* was significantly ($P<0.05$) high (11.80 ± 0.46 mg/ml) compared to other birds. The hybrid of *Columba livia* had the lowest concentration (5.65 ± 0.44 mg/ml) of cholesterol. Based on the values obtained from these works, eight of the yoghurt samples (except samples G and H) are considered safe for consumption, while *Columba livia* considered the most preferred bird safe for consumption.

Keywords: Cholesterol, Gallus domesticus, Melleagris galloparo, Anas platyhyncha, Numid melleagris, Collumba livia.

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FBN 037

***In Vitro* Antioxidant Activity and the effect of Methanolic Extracts of some Local Plants on Antioxidant Enzymes and Vitamins in Nutritionally Stressed Rats.**

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