Archives of Food and Nutritional Science

Volume - 1, Issue - 1

Research Article **Published Date:- 2017-08-31**

Effect of Pre-Treatments and Drying Methods on the Chemical Quality and Microbial Density of Wild Edible Oyster Mushroom

This study was carried out to evaluate the effect of pretreatments and drying methods on the chemical quality and microbial density of wild edible oyster mushroom. The mushroom samples were pretreated by steeping in 0.5% citric and sodium metabisulphite at room temperature for 10 minutes before being subjected to sun and cabinet drying until a constant weight was reached. The dried samples including the control samples (Samples not pretreated with chemicals) were evaluated for proximate, mineral composition and microbial density. The proximate analysis (protein, ash, fat, moisture and fibre) showed that untreated mushroom samples (both sun and cabinet dried) had the overall best results followed by samples pretreated with 0.5% sodium metabisulphite while samples pretreated with 0.5% citric acid had the lowest values. The mineral analysis (calcium, sodium, magnesium and potassium) of the mushroom samples followed the same trend as the proximate analysis. The microbial density of the samples showed that samples pretreated with 0.5% citric acid had the lowest count followed by samples pretreated with 0.5% sodium metabisulphite while the untreated samples had the highest microbial density. This implies that pretreatment with citric acid and sodium metabisulphite reduced the microbial density which may invariably extend the storage life of the edible oyster mushroom.

Research Article **Published Date:- 2017-08-31**

Anti-nutrient and mineral properties of Complementry Food produced from Malted Red Sorgum and Defatted Soybean Flour Blend

This study was aimed at producing a high nutritious food that will meet the nutritional requirements of consumers. Blends of malted red sorghum and defatted soybeans flour were processed and the resulting flours were formulated at ratios of 100:00; 95:5; 90:10 and 80:20 (malted red sorghum: defatted soybeans flour). The resulting products were subjected to antinutrients and minerals properties determination. The results obtained showed that the antinutrients decreased linearly with increase in the mineral elements. Antinutrients in the blends decreased from 2.25-1.80mg/g (oxalate); 2.45-2.16mg/g (phytate); 14.16-9.26g/100g (Alkaloids); 2.12-1.69/100g (saponin) and 0.18-0.13mg/g (Tannin). A percentage increase of 12.6% (sodium); 10.8% (calcium); 9.5% (potassium); 3.7% (magnesium) and 14.1% (Iron) was recorded as the quantity of defatted soybeans flour increased in the blends. The low levels of antinutrients in the blends produced make them safe and suitable for human consumption. Substitution of malted red sorghum with 20% defatted soybean flour showed a remarkable improvement in the mineral contents of the diets

---

Research Article **Published Date:- 2017-08-30**

Effect of drying methods on the physicochemical properties and Fatty Acid composition of Moringa Seeds Oil

Effect of drying methods (sun-drying and cabinet oven drying) on the physicochemical properties and fatty acid composition of oils extracted from moringa seeds was investigated. Oil from the seeds was extracted using solvent (hexane) after drying. Drying increased the yield from 30.30-33.11%. The oil samples were less dense than water with specific gravities of 0.9032, 0.9075 and 0.9030 respectively. A significant difference exists in the moisture contents (0.11-0.21%); smoke point (202-2250C), flash point (310-3170C) and fire point (360-3690C). Sun-drying and cabinet oven drying brought about a decrease in the acid value (1.80-1.08mgKOH/g), saponification value (174.87-105mgKOH/g), Iodine value (16.10-13.90wijs) and peroxide value (11.24-2.3-Meq/kg). The decrease is an indication of quality improvement of the oils. More unsaturated fatty acids were present in the samples between 76.61% and 81.66%. Oleic acid was predominant (44.92% raw, 45.71% sundried and 43.60% cabinet oven dried). Sun-drying and cabinet oven drying did not have much significant effect on the physical, chemical and fatty acid compositions of the oil. The results obtained from this study showed that the three oil samples are good as edible oil and for commercial purpose.

Research Article **Published Date:- 2017-08-14**

Effect of pre-treatments and drying methods on Moisture percentage of dried Tomato Slices

A study was undertaken the effect of pretreatments and drying methods on quality parameters of tomato slices with respect to storage using two factors as treatments i.e. 5 pre-treatment levels (P1-Peeled by hot water dip blanching, P2-Peeled by hot brine dip blanching, P3-Unpeeled by hot water blanching, P4-Unpeeled by hot brine blanching, P5-Control- No peeled and no blanched) and 2 drying methods i.e. (D1-Tray drying, D2-Sun drying) with completely randomized design of factorial concept with three repetitions at Post Graduate Laboratory of Horticulture Department, College of Agriculture, Junagadh Agricultural University, Junagadh. The quality was evaluated on the basis of physicochemical (i.e. drying time (h) and moisture content (%) at 1, 20, 40, 60 and 80th day of storage. Result of study depicts that the pretreatment P2 i.e. peeling of tomato by hot brine dip blanching followed by tray drying (D2) recorded minimum (14.50 h) drying time and the minimum changes in moisture content (4.00%-6.54%) observed in treatment P1 at 1st to 80th day of storage, respectively.

Mini Review **Published Date:- 2017-08-11**

Do Fishes Hallucinate Human Folks?

Hallucinogenic fishes are fishes that can create hallucinations if their tissue is ingested. These incorporate certain types of fish found in a several parts of the tropics. The impacts of eating hallucinogenic fishes are rumored to be comparative in a few viewpoints to lysergic acid diethylamide (LSD) or dimethyltryptamine (DMT). The encounters may incorporate distinctive sound-related and visual hallucinations. This has offered ascend to the collective common name “dream fish” for hallucinogenic fish. Sarpa salpa, a species of sea bream, is commonly claimed to be hallucinogenic. In 2006, two men who apparently ate the fish experienced mind flights going on for a few days. It is misty whether the poisons are delivered by the fish themselves or by marine algae in their diet.

Research Article **Published Date:- 2017-08-10**

Effect of storage period on the quality characteristics of two varieties of African Mango Seed Flour at ambient temperature

The effects of storage of Ogbona seed flour (Irivingia gabonensis and Irivingia excelsa), at ambient condition (30±20C, 65-74% RH) for 0-4 months on some physical characteristics were investigated. The samples were subjected to storage in air tight polyethylene bags for up to four months. Samples were removed at intervals of 0, 1, 2, 3 and 4 months for analysis. The chemical: proximate constituents, free-fatty acids and peroxide values; selected functional properties: water/oil absorption capacity, foam capacity and viscosity and sensory attributes of the samples were investigated. The result shows that there was no observable change in the chemical composition, selected functional and sensory properties of the two varieties of Ogbona seed flours when stored up to two months but decreased from third to fourth month during storage at ambient temperature. Therefore, storage at ambient temperature (30±20C, 65-74% RH) could extend the shelf life of the samples for up to two months in air-tight polyethylene bags of 0.7mm thickness without losing its quality characteristics.

Research Article **Published Date:- 2017-05-10**

Changes in Serum Markers of Atherogenesis and Hematological Profile after the consumption of Quail eggs

---

Previous studies suggest that diets with more eggs than is recommended may be used as part of a healthy diet in some countries. However, whether quail egg diets could form part of such diet has not been explored. The aim of the present study is to evaluate the effect of quail egg consumption on serum markers of atherogenesis and hematological parameters in healthy volunteers. Thirty adult subjects participated in this study after ascertaining their baseline health status. They were fed 3 eggs per day and 8hourlyfor 30 days. They were evaluated for serum levels of cholesterol sub-fractions, AIP and hematological parameters at days 0, 10 and 30 after the consumption of quail eggs. At day10, serum levels of cholesterol sub-fractions (TG, HDL-C and LDL-C) were not significantly ($p>0.05$) different from the corresponding values at baseline. Serum levels of VLDL-C and calculated AIP significantly ($p<0.05$) decreased compared to the levels at baseline. At day 30, serum levels of HDL-C, TG and VLDL-C significantly ($p<0.05$) increased, while LDL-C and AIP significantly decreased. Also, total RBC, HB, PCV, MCV, MCH and MCHC were not significantly different from the levels at baseline. At day 30, RBC, PCV and HB significantly ($p<0.05$) increased compared to the levels at baseline, while MCV, MCH and MCHC were not significantly ($p>0.05$) different from the baseline values.

Indeed, long-term consumption of quail egg may be associated with improvement in serum markers of atherogenesis and hematological parameters due to its varied nutrient constituents and their activities.