



Effect and Health Benefits of Plantain Peels Honey and Lime Juice in the Production of African Medicated Soap for Skin and Scalp Treatment

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Abstract

This study showed the production of African Medicated Black Soap. It aimed to determine the effects and health benefits of plantain peels, honey and lime juice in the production of African Medicated Black Soap for skin and scalp treatment. The specific objective are to produce chemicals from plantain peels and Cocoa pod ash, to produce African Medicated Black Soap with the chemicals produced, blend with honey and lime packaged and subjected to assessment of the respondents acceptability. The plantain peels and Cocoa pod were sundried. The chemical obtained and palm kernel oil were burnt on open fire until thicker. The product was kept for two weeks. Then, honey and lime were blended with the product to incorporate into Medicated Black Soap. Twenty (20) questionnaires were drawn for the respondents to administered. Percentage scores were employed using five (5) hedonic scales to assess the product. It can be deduced that (85.0%) agreed that the products were excellently accepted. About (15.0%) agreed that the products were excellently accepted. Hence, It can be concluded that African Medicated Black Soap can be used for provision of self employment and entrepreneurial skill for poverty alleviation reduction.

Keywords; Black soap Packaging Entrepreneurial skills African Medicated Soap

Introduction

African black soap originated in Africa or West African and made from African plants. It has characteristics black colour. According to Jeanne (2012), the colour varies from jet black to light brown depending on the ingredients used in making the soap. Black soap contains leaves and bark of plantain, Shea tree barks, Cocoa pod and palm kernel oil.

Klaus and Kurt (2005), discovered that black soap are brown or jet brown with high glycerin contents. It can absorbed water quickly, and should be stored in plastic bag or other dry containers and some other drier area in the shower or tub. Amfani (2017) deduced that in homemade soap, the glycerin is left, as an emollient (skin softener) and adds nice feel to the soap. The black soap made with plantain peels contain a high concentration of iron along with Vitamin A and E. Plantain peel comes with many internal and external benefits, and that's why it can be used to treat skin disorders and defects, such as wrinkles, skin allergies, acne and reduction scaring.

In some areas, cocoa pod rather than plantain are used. But when plantain peel ash and cocoa pod ash are mixed together, the soap produced

is usually excellent for treating acne, pimples and other skin diseases with it's properties. (Hofecker, 2012).

In Ghana, this kind of soap is usually made by women, and it is fairly -traded. Recipe that is used for making this kind of soap handed down to generations of people in Africa. There are different types of recipe for a black soap depending on the tribe that make it and it undisclosed secret which resulted in different colour variations in the soap produced. (Bella, 2010).

Honey has high level of monosaccharides, fructose and glucose and it contains about 70 to 80 percent sugar, which provides its sweetness. Honey also has antiseptic and antibacterial properties. Modern medical science had managed to find out the uses of honey in chronic wound management and combating infections. Honey is linked to wound healing properties and antibacterial actions. It has been used for medicine over five thousand years (5000yrs) ago. Honey makes black soap to smooth and soothes skin thereby serve as medicated agents and also, lime extract is useful in removing blemishes and dark (Klaus and Kurt, 2005).



Statement of Problem

It has been discovered that plantain peels are thrown away after the consumption of plantain. Also, people realize the health benefits of plantain peels and lime extract in fighting skin diseases. Therefore, the study uses plantain peels and Cocoa pod to process African black soap blended with honey and lime juice in the production of African Medicated Black Soap instead of using refined Medicated Soap.

Objectives of the Study

The major objective of this study to evaluate the effect and health benefits of African Medicated soap produce from plantain peels. The specific objectives are to;

- produce black soap using plantain peel ash and cocoa pod ash
- Examine the effect of honey and lime juice in black soap production.
- Determine the respondents acceptability of the black soap produced

Significant of the Study

The study will assist in determine the effect and health benefits of black soap produced from plantain peels ash and cocoa pod ash blended with honey and lime for the treatment of skin diseases

It will also examine the profitability level of black soap in contributing to National development a means of creating job opportunities.

Scope of the study

The study was limited to Ibarapa Central Local Government and was carried out at Oyo State College of Agriculture and Technology, Igboora. The study was limited to plantain peel ash and cocoa pod ash. The ash was steep for two (2) weeks and the chemical were derived. The chemical obtained were used in the production of African black soap. Then, honey and lime juice were blended with the soap to incorporate into Medicated black soap. Twenty (20)

questionnaires were drawn for the respondents to administered to determine the results of the findings.

Materials and method

Local palm kernel oil, chemical (Aro produced from plantain peels ash and cocoa pod ash), honey lime juice.

Production of chemical

Plantain peels and cocoa were sun dried and burnt into ash. The ash obtained was mixed with water and the liquid extracted through filtration was soaked thoroughly to obtained chemical.

Method of African black soap Production

Dilute the chemicals obtained from cocoa pod ash and plantain peel ash with palm kernel oil, burn on open fire till it's become thicker. Allowed to cool for at least two (2) weeks.

Method of African Medicated Black Soap

Add pure honey into the product produced in a mortar. Mash it with pestle until the honey was well blended with the black soap. Add lime extract/juice to it and mash. Package the product produced.

The information and results were obtained through questionnaires distributed and administered among the members of staff and students. Also, reference were made to textbooks, journal, magazine and handbooks.

Method of Data Analysis

Materials and methods used for the purpose of the research work were analyzed after the production. The tabulation and percentage scores were employed. The questionnaires were based on the texture, colour, appearance, usefulness and overall acceptability of the production using five (5) hedonic scales.

Lastly, the conclusion and recommendation were based on the interpretation of data collected from the questionnaires that were administered.

Respondents' acceptability of the Black Soap Produced

Parameter acceptability	Score	Colour	Appearance	Texture	Usefulness	Overall
Excellent	5 (55.0%)	11 (75.0%)	15 (80.0%)	16 (80.0%)	16 (85.0%)	17
Very good	4	9	5	4	4	3
Good	3	-	-	-	-	-
Better	2	-	-	-	-	-
Bad.	1	-	-	-	-	-



Tumosa (2017), opined that soap produced with plantain peels contain glycerin which act as emollient (skin softener) and adds a nice feel to the soap. Also, soap made with plantain peels contain high concentration of iron along with Vitamin A and E. According to Ryan (2019), lime have several properties that may promote healthy skin. They are high in Vitamin C which is necessary to make collagen. Lime also contain protein that keeps the skin firm and strong. Ryan study shows that soap produced with lime contain antioxidant and Vitamin C had a low risk of wrinkles and dry skin. A review published in the Cochrane Library indicated that honey might be able to heal burns. In 2010, Scientist from the Academic Medical Center at the University of Amsterdam reported FASEB journal discovered that honey had ability to kill bacteria lies in a protein called defending. People have attempted to use honey as a remedy for the following; eczema and dermatitis, burns, cut and wound

The present study and data obtained from the respondents is shown in the discussion below;

The table shows that (55.0%) respondents rated the colour excellent, (45.0%) rated it to be very good. It also assessed that (75.0%) respondents agreed that the appearance were pleasing, (25.0%) believed that it's very good. The result indicated that (80.0%) respondents agreed that the texture were firm, (20.0%) believed it to be good. It further indicated that (80.0%) respondents agreed that the products to be useful, (20.0%) agreed to be good. Hence, it can be deduced that (85.0%) agreed that the products were excellently accepted, (15.0%) agreed that the products to be good. From the findings of the past scholars and the present study, it can be deduced that African Medicated Soap Produced with plantain peels blended with honey and lime have health benefits for skin and scalp treatment.

Conclusion

From the result, it can be concluded that African Medicated Black Soap produced from plantain peel ash had good characteristics measure in terms of vibrant colour, appealing appearance and overall acceptability from the respondents. Therefore, African Medicated Black Soap can be used as an entrepreneurial skill in alleviating poverty.

Recommendation

From the findings, it is recommended that people should be encouraged and trained on the production of African Medicated Black Soap. Also, further research should be carried out on the production of African Medicated Black Soap using other waste products for wealth creation.

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