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Medical Benefits of the Shea Nut Tree

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Table of Contents

Abstract.....	1
Introduction.....	2
A Beautiful Concept.....	3
Moisturize, Moisturize.....	4
Shea On The Side.....	5
ECO-Entrepreneurs.....	7
Conclusion.....	8
Acknowledgements.....	9
References.....	10



Shea fruits ripen on wild Shea trees scattered throughout the savannas of central and northern Togo.



Traditionally crafted, pure and natural Shea butter from the Agbanga Karite Group in central Togo



A group of Shea butter artisans in Sokode, Togo.

Abstract

Vitellaria paradoxa, also classified as *Butyrospermum parkii* and *B. paradoxa* is commonly known as **Shea tree or Shi tree**, is a tree native to Africa.

The Shea fruit consists of a thin, tart, nutritious substance that surrounds a relatively large, oil-rich seed from which Shea Butter is extracted, frequently used in the production of chocolate as a substitute for cocoa butter.

Many indigenous people in countries such Mali, Cameroon, Congo, Côte d'Ivoire, Ghana, Guinea, Togo, Nigeria, Senegal, Sudan, Burkina Faso and Uganda claim that the plant has the potential to improve nutrition, boost food supply, and serves as a traditional African food plant that is edible, delicious and tastes like a fig.

Research has indicated that the oil-rich seed is used for medicinal purposes and has been heavily incorporated into the beauty industry in many parts of Africa and in the West. Therefore the purpose of this paper is to provide a literary review addressing the medicinal and other beneficial benefits of the Shea Nut Tree. The fruit is edible, delicious and tastes like a fig.

Introduction

Throughout history natural products have been used to treat, prevent, and cure many ailments. In the last 10 years, a large majority of over the counter products (OTC's) have incorporated ingredients such as honey, Golden Seal and Echinacea for colds; Ginkgo Biloba for memory and concentration; Ginger is on the FDA's list of safe foods and is used to make the bitter taste of cough medicine, and in its powder form the root has been used for pain reduction and in treating gastrointestinal problems.

There is also a heavy presence of natural products in the fields of dermatology and cosmetology. For years cocoa butter has been used to moisturize dry skin even a product like oatmeal has become very popular in relieving skin conditions such as eczema and hives.

Recently, Shea Butter – a product produced by the Shea Nut Tree *Butyrospermum parkii* – has been used for a wide range of hair and skin products. It is also used in the manufacturing and production of Chocolate and in food preparation in many areas of the African continent.

Shea Butter has also been studied as an anti-inflammatory balm and is used to heal bruising, dermatitis, and in all forms of massage therapy.

A BEAUTIFUL CONCEPT

The Shea Nut tree has been used for centuries as a source of food and medicine in Africa. The Moroccan traveler Ibn Battuta already observed regional trade of Shea butter across West Africa in the fourteenth century. A few centuries later, the Scottish explorer Mungo Park noted the great importance of Shea butter in present day Mali and Senegal. He also made the first known botanical drawing of the tree and attempted to classify the species.

Over the years, Shea Butter has been added to a variety of products ranging from shampoo to cooking oil. The bioactive substances in Shea Butter reside in the unsaponifiable fraction – the oil-soluble constituents that would not react with alkali to form soap – which is a by-product of the CBE/CBI production process. They – these bioactive substances - include anti-oxidants such as tocopherols or vitamin E and catechins which are also found in green tea (Masters, 2004). The tree provides many different uses; the Shea bark is used for medicine to cure ailments in skin treatment in children- especially newborns and treat minor scratches and cuts, the leaves are eaten as a vegetable in Yewa, North Central Nigeria, and Benue. The extract from the leaves has been used to relieve headaches and as an eye bath; the nutshell has a built- in mosquito repellent; and the butter – which has been a central element of this paper – made from the Shea nut is used for skin moisturizing creams and lotions, cooking, soap, and in manufacturing chocolate. (George, 2011 & Abidemi, 2009)

Currently BSP Pharma is producing a "nutraceutical" Shea product that has been developed for and has been clinically proven to lower cholesterol in humans (Masters, 2004). Its use as a base for

medicinal ointments has been claimed to have anti-inflammatory, emollient and humectant properties (Akihisa, 2010).

Although health and beauty trends may change, the benefits of this wonderful tree and the products that have been incorporated into our daily lives will continue to help promote a quality natural lifestyle; not to mention the financial stability the production of the various products have given to the women of Western Africa.

MOISTURIZE, MOISTURIZE

For many the morning bathing ritual goes like this. Cleanse, deodorize, and moisturize. In many commercials for beauty products the main focus is healthier, more radiant and **MOISTURIZED** skin. Shea butter and the properties found in the product are in many of the products that are currently being advertised to consumers worldwide. The properties of the tree are stearic acid, which promotes and protects skin barrier health (Fowler, 2008) and various ingredients such as triterpene alcohols, known to reduce inflammation; cinnamic acid esters, that have limited capacity to absorb ultraviolet (UV) radiation; and lupeol, this property prevents the effects of skin aging by blocking the action or function of enzymes that degrade skin proteins. Shea butter also protects skin by stimulating production of structural proteins by specialized skin cells.

In an article entitled 'Winter Itch', published in February, 2012 by Dr. McLean Sheperd of Sheperd Integrative Dermatology in Mount Pleasant, South Carolina. She recommends Shea Butter for repairing dry inflamed skin caused by dermatitis and as a night time moisturizer for hands and feet.

Research on this subject provided an opportunity to conduct a short interview with Dr. A. Amikloe Maraesa, Professor of Anthropology – Hunter College: CUNY, and view her website where she promotes her homemade Shea Butter products. In addition to speaking to her about her experiences in Senegal, we also discussed some of the historical background of the Shea Nut Tree and Shea Butter, I also learned that it can be used to control dandruff, lessen scarring and keloids, as a nasal decongestant and as an ingredient in many homemade (and mass produced) soaps, ointments, and creams. It helps the skin retain its natural oils and can stimulate collagen production (www.sheabutter.net, 2006)

Shea on the Side

One use that may surprise some is in the culinary arts. In Africa it is used to prepare meals as cooking oil and the leaves of the tree are also used and are consumed as a vegetable. Shea Butter is also used as a cocoa butter additive in manufacturing chocolate (Honfo, 2012). In the neighborhoods of Northern Benin it is used as the main edible oil, being used much like vegetable oil, butter, or olive oil. Shea Butter provides food oil for more than 80% of the population thus making it the most important source of fatty acids and glycerol in the diet of the natives. The estimated usage on a daily basis by individual in the area is estimated at 26.3 grams per person (Honfo et al, 2010) and is rising because the imported oils are becoming more and more expensive than the local product. In addition, Shea Butter has B vitamins and sugar content that can vary from three to six percent and is allocated in equal portions between glucose, fructose and sucrose (Abidemi, 2009).

ECO-ENTREPRENEURS

Many countries in West Africa have community partnerships that train the local women to produce market and sell high quality Shea Butter. The Shea Yeleen International (SYI) is one such non-governmental organization (NGO) in Mali (George, 2011) that offers training. There is also a cooperative organization in Togo that produces Alaffia Handcrafted Shea Butter.

The large majority of these women are disadvantaged. They have been denied credit, do not have any technical training or skills, nor do they have any readily available tools or transportation to go and find employment to support their families. This is why the main goal of these service/learning organizations is to focus on the small fair trade cooperatives that produce a quality product for the world market and is staffed by and benefits the women of West Africa (image 1, pg.3). (George, 2011).

In Mali the non-governmental organization has also introduced an academic collaboration in two different communities in Mali. This has given the female residents an opportunity to increase their financial standing, market products from the Shea Nut Tree, and educate the worldwide population in the ways and benefits of natural health and beauty. (George, 2011)

These grass roots organizations also educate their consumers in the United States and abroad about the benefits of fair trade and natural body products (Shea Yeleen International, 2010).

CONCLUSION

Throughout history we have seen how nature has impacted science. From the natural remedies introduced to the world by the Ancient Chinese and Egyptians, to the discovery of Penicillin in 1928 by Alexander Fleming, and the revolutionary research done by Dr. Jonas Salk in the area of Polio prevention in the 1950's, we see that science and nature have a mutually beneficial relationship.

By utilizing natural resources such as the Shea Nut Tree to prevent and cure human ailments, the global scientific community is helping to promote healthier living practices and less dependency on chemically manufactured cures. These practices have also helped to boost the economies in many West African countries and have helped promote financial independence among the women in those areas.

The Shea Nut Tree is truly a miracle product for all!

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References

1. Abidemi, T.A., Adebayo O.J., Idowu O. and Agbotoba 2009 Nutrient content and anti-nutritional factors in shea butter (*Butryospermum parkii*) leaves *African Journal of Biotechnology Vol. 8 (21), pp. 5888-5890, 2 November, 2009*
2. Akihisa T, Kojima N, Katoh N, Ichimura Y, Suzuki H, Fukatsu M, Maranz S, Masters ET. 2010 Triterpene alcohol and fatty acid composition of shea nuts from seven African countries. *J Oleo Sci. 2010;59(7):351-60.*
3. Chalfin, B. 2004. *Shea Butter Republic: state power, global markets, and the making of an indigenous commodity.* New York, USA, Routledge.
4. Fowler, J., Silverberg, N. 2008 Active Naturals Have a Key Role in Atopic Dermatitis *A Supplement to Pediatric News / Seminars in Cutaneous Medicine and Surgery and Skin and Allergy News*
5. George, C., Shams A. N. and Dunkel, F.V. 2011 Lessons Learned in an International Service-Learning Collaborative: Shea Butter Case Study *North American Colleges and Teachers of Agriculture Journal , 71-77*
6. Honfo, F.G., Hell, K., Akissoe, N, Linnemann and Coulibaly, O. 2012 Microbiological and physicochemical characterization of shea butter sold on Benin markets *Journal of Stored Products and Postharvest Research Vol. 3(3), pp. 24 – 29, 8 February, 2012*
7. Sheperd, M. 2012 Winter Itch *Sheperd Integrative Dermatology Notebook*

Internet Sources

1. **Maraesa, Aminata Amikole 2006. www.sheabutter.net**
2. **www.ezoetic.com/unrefined-shea-butter-wildcrafted-handcrafted.html**