

A Review on the Application of Tengguo in Cosmetics

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Abstract

Plukenetia volubilis Linneo, scientific name South American oil rattan, a perennial woody vine of Euphorbiaceae, grows in South America at an altitude of 80~ 1700m Andes Regional tropical rain forest. At the end of 2008, Yunnan Province Pu 'er Tea Lianzhong Biological Resources Development Co., Ltd. began to introduce seed sources, and tested planting in Pu'er City and Xishuangbanna Prefecture in 2009. Now it is mainly distributed in Pu'er, Yunnan Province, Xishuangbanna and other regions, with a planting area of more than 50000 mu. Rattan fruit Nut Rich nutrition, rich in protein, unsaturated fatty acid vitamin E And calcium, phosphorus, iron and other minerals to promote bone growth and nervous system development. It plays an important role in beauty and anti-aging, improving digestive system function, preventing cardiovascular disease, cancer and diabetes. Officially announced and approved in January 2013 Rattan oil For the country New resource food.

Keywords

Meto fruit, Cosmetics, Repair, Antioxidant.

1. Research status of cosmetics of Meiteng Fruit

Before 2004, there was no systematic understanding of the development and application of Meiteng fruit oil in the cosmetics field. Meiteng fruit oil only appeared in people's daily life as a food raw material. With the in-depth study of the relationship between fatty acids and skin structure, the popularization of knowledge about the mechanism of vegetable oils on healthy skin, and the popularity of Meiteng fruit oil in the European market, the development and application of Meiteng fruit oil in the field of daily chemicals have been accelerated. In 2005, French Green Technology Co., Ltd. applied Meiteng fruit oil in the cosmetics field, which attracted extensive attention from the international cosmetics industry. Since then, a series of cleaning products with rattan oil as the special effective raw material have been launched, such as DAPHIN Essence Cleansing Series in France, REDK Mild Makeup Removing Cleansing Cream Series in the United States, THREE Condensation Water Powder Cream Series in Japan, HYLAMIDE Efficient Makeup Removing Cream Series in the United Kingdom, SHEA MOISTURE Soap Series in Singapore, AMI IYOK Eye Essence Series in Spain Korean AQUOTOP essence essential oil series products. In 2010, the Chinese name list of international cosmetics raw materials standards (2010 edition) released by the State Food and Drug Administration included Meiteng fruit oil (Inca fruit seed oil) into the range of usable raw materials. In recent years, some domestic biomedical enterprises and cosmetics enterprises have also successively developed a series of cosmetics products with Meiteng fruit oil as the characteristic raw

material, such as BGI's Unicute Yinjiaguo Shuiguang Fresh Skin Series, Lianzhong Biological Meiteng Fruit Skin Care Series, Youshang Company's Flash Diamond Yinjiaguo Cleaning Series, Yinqi Biological Yinqiguo Cleaning Series and Asaka Skin Care Series. It fully shows the strong development momentum of Meiteng fruit oil as a new green functional cosmetic raw material.

2. Overview of research on Meiteng Fruit

At present, there is less application of Meiteng fruit oil in China, which can be used as cosmetics raw materials or as food products. Rattan oil, golden yellow or light yellow, clear and transparent, relative density 0.9281, Refractive index 1.4813, with the inherent smell and taste of Meiteng fruit, without peculiar smell; Its main chemical characteristics: acid value (calculated by KOH) 0.41 mg/g, Iodine value (calculated by I₂) 179, Saponification value (calculated by KOH) 191.8 mg/g, Peroxide value 0.15 g/100g, rich in many kinds of human body Essential fatty acids Fat soluble vitamins and trace elements.

The iodine value of Meiteng fruit oil is 179 g/100g (calculated by I₂), which is a dry oil, indicating that its unsaturated fatty acid content is high; Acid value And peroxide values are 0.41 mg/g (based on KOH) and 0.15 g/100g respectively, which are lower than the edible vegetable oil acid value ≤ 3 mg/g and Peroxide value ≤ 0.25 g/100 g. The above data shows that Rattan oil It can reach the national level without refining various indicators Edible oil Standards.

3. Outlook

Extraction process and fatty acid composition analysis of Meiteng fruit oil The extraction technology of Meiteng fruit oil mainly includes cold pressing at low temperature, organic solvent extraction, supercritical CO₂ extraction and ultrasonic assisted extraction. The extraction process of Meiteng fruit oil is different from the fatty acid composition analysis results. The quality of oil obtained by different extraction methods is different, and the content of unsaturated fatty acid is also different. Among them, low-temperature cold pressing has been applied in industrial promotion because of its low cost, simple process equipment, strong operability, and the ability to retain the nutrient active substances in the oil to the maximum extent, but its main defect is that the oil yield is low, resulting in high costs at the production end. Other extraction methods, or organic solvent residues, have adverse effects on the environment and products, or there are problems such as high equipment investment costs, cumbersome extraction processes, and difficult industrial production. Most of them are in the laboratory research stage, and there is no report on large-scale production and application. Therefore, improving the yield of Meiteng fruit oil and ensuring the quality of Meiteng fruit oil will be the direction of large-scale production of Meiteng fruit oil in the future.

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