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The benefit of palm tocotrienols in personal care products

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Tocotrienols and tocopherols are members of Vitamin E. They are naturally found in palm oil, barley, wheat germ, oats, rice bran and etc. Palm tocotrienols is a palm derived vitamin E consisting of naturally occurring tocotrienols-tocopherol mixture. Others grain consist solely tocopherol. The tocotrienols differs from tocopherol as the former have three double bonds in the carbon side chain. The tocotrienols differences may result in different efficacy and potential as an antioxidant. The tocotrienols was reported to have higher antioxidant activity compared to tocopherol and has been proven to have anti-aging properties. Many work on other studies on benefit of human health such as DNA damage in older adults, neuroprotective effect, chemo-protective and skin protection have been published. The objective of this paper is to confirm the effectiveness of tocotrienols in personal care products. The personal care formulations enriched with tocotrienols, namely nano anti-wrinkle serum, whitening lotion, slimming lotion, and cracked heel cream were prepared. The efficacy/clinical studies were carried out by the third party. The products were measured for skin firmness, skin elasticity, melanin content, fat removal, trans-epidermal water loss (TEWL) and crack heel recovery. The result showed that the tocotrienols prevent skin aging by stimulating collagen synthesis and increase skin elasticity in nano anti-wrinkle serum. Skin whitening lotion has shown that the tocotrienols promote skin whitening by reducing tyrosinase activity and decreased melanin content. Tocotrienols has shown in fat removal for slimming lotion. The decrease in skin roughness was found in cracked heel.

Biography

Zahariah Ismail obtained PhD in Surfactant Chemistry in 2001, Master in Business Administration in 2006 and major in Techno- entrepreneurship. Her area of academic specialized was in oleochemical. She has worked with Malaysian Palm Board (MPOB) for 23 years. Her involvement was in research & development for rheology of colloid, pharmaceutical, personal care and household products. Now she is engaged with Sime Darby Research Sdn Bhd working on the same line. She has published more than 30 papers in reputed journals.

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