

Achtung: Zum Skandal! Pomegranate in cosmetics and dietary supplements have been jeopardising Human Health from decades howbeit History does declare always it is safe!

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Sir,

The courageous, strenuous and intrepid promotion of the marketing of cosmetic items based on pomegranate derivatives has been resounding from 15 years all over the world and even juices of this fruit is sold everywhere to promise an antioxidant property and anti-free radicals activity when assumed more times pro day and even kids use to drink it continuously, as it were pineapple or orange juice or whichever soft drink.

Seeds and the external cortex of pomegranate roots (that are included in the extract itself) contain large percentages of pellieterin (60-65%) that is to be reputed the strongest anthelmintic agent in the pharmacist's armoire: in XIX century young infants who suffered from Taenia or amebiasis used to undergo to the purification of bowels assuming blindfolded a decoction of pomegranate root in order to eliminate the parasites through faeces and these children were forced to be bound to marble tables in order not to fall into epileptic accesses and suffocate cause of the bearing down of their tongue inside the oral cavity.

Few are the scientists who know this risk, even the existence of pellieterin is evident!

Effectively Pseudopelletierine is the main alkaloid derived from the root-bark of the pomegranate tree (*Punica granatum*), along with at least three other alkaloids: pelletierine, isopelletierine, and

methylpelletierine (C₉H₁₇ON), which yield 1.8, 0.52, 0.01, and 0.20 grams per kilogram of raw bark.

It is a homolog of tropinone, and can be synthesized in a manner analogous to the classical Robinson tropinone synthesis, using glutaraldehyde (rather than succinaldehyde), acetonedicarboxylic acid, and methylammonium chloride [1].

It was the starting material for Willstätter's 10-step synthesis of cyclooctatetraene, which was achieved after oxidation and several Hoffman elimination steps.

The pomegranate (*Punica granatum*) is a fruit-bearing deciduous shrub in the family Lythraceae, subfamily Punicoideae, that grows between 5 and 10 m (16 and 33 ft) tall. The pomegranate is rich in symbolic and mythological associations in many cultures.

Young pomegranate tree in Side, Turkey.

The pomegranate was thought to have originated from Afghanistan and Iran before being introduced and exported to other parts of Asia, Africa, and Europe [2]. It was introduced into Spanish America in the late 16th century and into California by Spanish settlers in 1769. They are widely cultivated throughout West Asia and Caucasus region, South Asia, Central Asia, north and tropical Africa, the drier parts of Southeast Asia, and the Mediterranean Basin. The fruit is typically in season in the Southern Hemisphere

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from March to May, and in the Northern Hemisphere from September to February.

As intact sarcotestas or as juice, pomegranates are used in baking, cooking, juice blends, meal garnishes, smoothies, and alcoholic beverages, such as cocktails and wine.

The pomegranate is native to a region from modern-day Iran to northern India. Pomegranates have been cultivated throughout the Middle East, India, and Mediterranean region for several millennia, and it is also cultivated in the Central Valley of California and in Arizona. Pomegranates may have been domesticated as early as the fifth millennium BC, as they were one of the first fruit trees to be domesticated in the eastern Mediterranean region.

Carbonized exocarp of the fruit has been identified in early Bronze Age levels of Tell es-Sultan (Jericho) in the West Bank, as well as late Bronze Age levels of Hala Sultan Tekke on Cyprus and Tiryns.

A large, dry pomegranate was found in the tomb of Djehuty, the butler of Queen Hatshepsut in Egypt; Mesopotamian records written in cuneiform mention pomegranates from the mid-third millennium BC onwards [3]. Waterlogged pomegranate remains have been identified at the circa 14th century BC Uluburun shipwreck off the coast of Turkey [4]. Other goods on the ship include perfume, ivory and gold jewelry, suggesting that pomegranates at this time may have been considered a luxury good. Other archaeological finds of pomegranate remains from the Late Bronze Age have been found primarily in elite residences, supporting this inference [4].

It is also extensively grown in southern China and in Southeast Asia, whether originally spread along the route of the Silk Road or brought by sea traders. Kandahar is famous in Afghanistan for its high-quality pomegranates [5].

Although not native to Korea or Japan, the pomegranate is widely grown there and many cultivars have been developed. It is widely used for bonsai because of its flowers and for the unusual twisted bark the older specimens can attain. The term “balaustine” (Latin: balaustinus) is also used for a pomegranate-red color.

Coat of arms of Spain with a pomegranate at the bottom, symbolizing the kingdom of Granada.

Spanish colonists later introduced the fruit to the Caribbean and America (Spanish America), but

in the English colonies, it was less at home: “Don’t use the pomegranate inhospitably, a stranger that has come so far to pay his respects to thee,” the English Quaker Peter Collinson wrote to the botanizing John Bartram in Philadelphia, 1762. «Plant it against the side of thy house, nail it close to the wall. In this manner it thrives wonderfully with us, and flowers beautifully, and bears fruit this hot year. I have twenty-four on one tree... Doctor Fothergill says, of all trees this is most salutiferous to mankind.

The pomegranate had been introduced as an exotic to England the previous century, by John Tradescant the Elder, but the disappointment that it did not set fruit there led to its repeated introduction to the American colonies, even New England. It succeeded in the South: Bartram received a barrel of pomegranates and oranges from a correspondent in Charleston, South Carolina, 1764. John Bartram partook of “delicious” pomegranates with Noble Jones at Wormsloe Plantation, near Savannah, Georgia, in September 1765. Thomas Jefferson planted pomegranates at Monticello in 1771; he had them from George Wythe of Williamsburg.

Raw pomegranate seeds ready to be eaten stall selling pomegranate juice in Xi’an, China.

Pomegranate juice can be sweet or sour, but most fruits are moderate in taste, with sour notes from the acidic ellagitannins contained in the juice. Pomegranate juice has long been a popular drink in Europe and the Middle East, and is now widely distributed in the United States and Canada.

Grenadine syrup originally consisted of thickened and sweetened pomegranate juice now is usually a sales name for a syrup based on various berries, citric acid, and food coloring, mainly used in cocktail mixing.

A bowl of ash-e anar, an Iranian soup made with pomegranate juice

Before tomatoes (a New World fruit) arrived in the Middle East, pomegranate juice, pomegranate molasses, and vinegar were widely used in many Iranian foods, and are still found in traditional recipes such as fesenjān, a thick sauce made from pomegranate juice and ground walnuts, usually spooned over duck or other poultry and rice, and in ash-e anar (pomegranate soup) [6,7].

Pomegranate seeds are used as a spice known as anar dana (from Persian: anar + dana, pomegranate +

seed), most notably in Indian and Pakistani cuisine. Dried whole seeds can often be obtained in ethnic Indian markets. These seeds are separated from the flesh, dried for 10–15 days, and used as an acidic agent for chutney and curry preparation. Ground anardana is also used, which results in a deeper flavoring in dishes and prevents the seeds from getting stuck in teeth. Seeds of the wild pomegranate variety known as daru from the Himalayas are regarded as high-quality sources for this spice.

Dried pomegranate seeds, found in some natural specialty food markets, still contain some residual water, maintaining a natural sweet and tart flavor. Dried seeds can be used in several culinary applications, such as trail mix, granola bars, or as a topping for salad, yogurt, or ice cream.

Presently, the new entry of this new year, the Mongongo, contains pellieterin too: Rich in polyunsaturated fatty acids, especially linoleic acid (ceramide) omega 6 (C18:2) that lets the skin and hair shine. The high content of an eleostearic acid (punicin acid >20% omega 5 (C18:3n5) polymerizes by UV light and forms a protective film. In addition it contains oleic acid omega 9 (C18:1) and palmitic acid omega 7 (C16:0) which helps to regenerate and protect the skin cells. Mongongo oil has the highest Vitamin E content of all oils described in the codex alimentarius.

The mongongo tree, mongongo nut or manketti tree (*Schinziophyton rautanenii*) is a member of the family Euphorbiaceae and of the monotypic genus *Schinziophyton*. A large, spreading tree, the mongongo reaches 15–20 metres tall. It is found on wooded hills and among sand dunes, and is associated with the Kalahari sand soil-types. The leaves are a distinctive hand-shape, and the pale yellow wood is similar in characteristics to balsa, being both lightweight and strong. The yellowish flowers occur in slender, loose sprays.

The fruits are known as mongongo fruits, mongongo nuts, manketti nuts or nongongo. The egg-shaped, velvety fruits ripen and fall between March and May each year, and contain a thin exocarp around a thick, hard, pitted shell containing an edible nut.

The mongongo is distributed widely through subtropical southern Africa. There are several distinct belts of distribution, the largest of which reaches from northern Namibia into northern Botswana,

south-western Zambia and western Zimbabwe. Another belt is found in eastern Malawi, and yet another in eastern Mozambique.

It is also found in Angola, Tanzania and Zaire.

And for, it is considered a fair trade natural product to be promoted as cosmetic UVC protecting agent.

Nowadays sun becomes day after day more lethal and we deem that in the next 20 years the usage of umbrellas protecting from UVC and IR rays will become compulsory, as it was in Singapore and China two centuries ago (almost forwell-off and rich people).

Punicin polymerses owing to the UVC rays themselves and does build up a barrier towards these perilous rays...so the recommendation of *Punica granatum* extract as simplest rejuvenating and antioxidant scrub for dirty and old skin we deem is run down and obsolete as well.

A reach and nourishing W/O emulsion containing 18% of pellieterin (from *Punica granatum* glyceric extract) is welcome as total sun blocker, in these periods of global risk of sun killing.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

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