



Human Health between Traditional Medicine and New Technology: Nutrition in Al Qur'an – Olive Oil, Vinegar and Nigella Sativa

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Qur'anic Holistic Concept of Health

- Islam holistically defines health similar to that given by the WHO (1948): "A state of complete physical, mental and social well being and absence of disease or infirmity".
- In Islam, man has responsibility to take good care of health so as to prolong his opportunity to grant gratefulness to Allah (SWT).

الصحة والرشاقة





وَإِذَا مَرَضْتُ فَهُوَ يَشْفِينِ

And when I sicken, then He healeth me

Al-Shuara 26:80

Usamah ibn Shuraik narrated: The Prophet Muhammad once said that "Allah did not create a disease for which He did not also create a cure." (Tirmidhi). Therefore Muslims turn to the Quran and Sunnah for guidance in all areas of life including health and medical matters.



Foods As Islamic Traditional Medicine

- ❑ Islamic traditional medicine so-called Medicine of the Prophet (*al-tibb an-Nabawi*) amongst them are foods which Muslims often use as an alternative to modern therapies, or as a supplement to modern medical treatment.
- ❑ In addition to three main purposes for life, foods in Islam have another function as a mean for expressing gratefulness to Allah (SWT).



"Halal" Principle of Islam



HALAL IS FAITH NOT BUSINESS

يَا أَيُّهَا النَّاسُ كُلُوا مِمَّا فِي الْأَرْضِ حَلَالًا طَيِّبًا
وَلَا تَتَّبِعُوا خُطَوَاتِ الشَّيْطَانِ إِنَّهُ لَكُمْ عَدُوٌّ مُبِينٌ

O **mankind** (Muslims and Non-Muslims)! Consume (eat, utilize) of that which is **Halal** (*lawful*) and **Tayyib** (*valued, wholesome, good, hygienic, nutritious, safe, scientific, etc*) in the earth, and follow not the footsteps of the devil (*Satan, sin, wicked, detest, corrupted*). Lo! he is an open enemy for you.

(*Al Baqara 2: 168*)



Islamic traditional medicine & Technology: Olive Oil

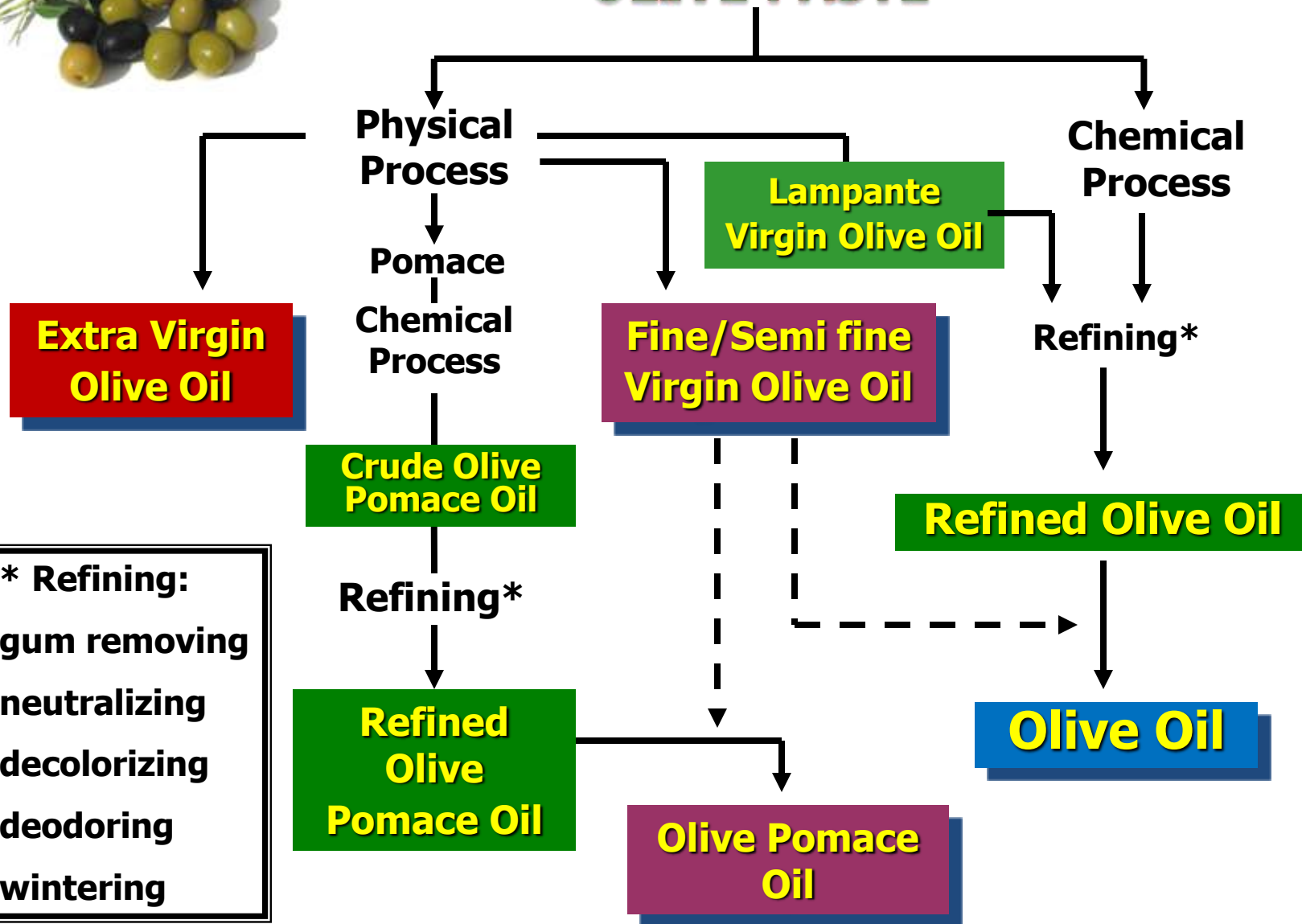


- The Quran says: "And a tree (olive) that springs forth from Mount Sinai, that grows oil, and it is a relish for the eaters" (Quran 23:20). The Prophet Muhammad also once told his followers: "Eat the olive and anoint (yourselves) with it, for indeed it is from a blessed tree."





OLIVE PASTE



Nutritive Value of Olive Fruit/Oils

	Fat	CHO	Prot	Min	Vit	Phytonutr
Table Olive	+++	++	+	+	++++	++++
Extra Virgin	++++++				+++	+++
Virgin	++++++				++	++
Olive oil	++++++				+	+
Refined	++++++					
Pomace	++++++				(+)	(+)



PHYTONUTRIENTS AND ANTIOXIDANTS IN OLIVES AND EXTRA VIRGIN OLIVE OIL



Oleic acid
Tocopherol
Carotenoids
Hydroxytyrosol
Tyrosol
Eleuropein
Lignans
Squalene
Terpenoids



HOW OLIVE OIL WORKS AS FUNCTIONAL FOOD

- Synergic effect of unique profile of phenolic compounds in presence of squalene and oleic acid assists protection against cancer: colon, breast, skin, CVD, aging
- Three classes of phenolic compounds with potent antioxidant properties
 - Simple phenols: hydroxytyrosol, tyrosol
 - Secoiridoids: oleuropein, aglycone of ligtroside and derivatives
 - Lignans: acetoxypinoresinol, pinoresinol

Owen et al. Lancet Oncol. 2000



OLIVE OIL AND CANCER



- MUFA << PUFA & SFA in inducing carcinogenesis
- Antioxidants inhibit carcinogen
(*Owen et al 2000*)
- Synergistic effects of phytochemicals of olive and other plants in olive oil added/cooked foods (*Lee et al 2000*)



OLIVE OIL AND HEART DISEASE

❖ Many scientific studies reported that the MUFAs content in olive oil may help lower the risk of cardiovascular disease (*Kris-Etherton PM, 1999; De Caterina R et al 2006; Ding H et al 2007; Erkkila, et al. 2008*)

❖ ↓ total cholesterol

❖ ↓ LDL

❖ Help normalize blood clotting



**The Olive oil-based product developed by
The Halal Science Center, CU**



OLIVE OIL FOR DIABETES

- Fat yields least blood glucose (10%)
- MUFA tolerate to free radical reaction
- MUFA replaces CHO
- MUFA decreases sd LDL
- Olive oil's polyphenol detoxifies free radicals
- MUFA & certain phytonutrients improves insulin function



Olive oil in parenteral nutrition

- ❑ Olive oil-soybean oil blended emulsion (OO-SO, 80:20 v/v), was suggested to reduce lipid peroxidation and immune function impairment.
- ❑ OO-SO based emulsion may offer significant advantage over soybean oil-based emulsion with regard to liver function, oxidative stress, immune function and in terms of glucose metabolism.



Reimund, et al. Alimentary Pharmacology & Therapeutics 2005; 21: 445–454.

Sala-Vila A, Barbosa VM, Calder PC. Curr Opin Clin Nutr Metab Care. 2007;10:165-74



Health Benefits of Vinegar

1. Antimicrobial Properties
2. Antioxidant Effects
3. Anti-Diabetic Effects
4. Cancer
5. Weight Loss
6. Heart Health
7. Heartburn and Acid Reflux
8. Injuries
9. Brain Health
10. Increased Nutrient Absorption

*Rasullulah (SAW) said
"What a blessed
condiment vinegar is."
(Sunan Ibn Majah)*



Aware of Wine Vinegars

Anas ibn Maalik said “The Messenger of Allaah (peace and blessings of Allaah be upon him) was asked whether wine could be changed to be used as vinegar. He said No.” – Hadith Muslim



- “Allah has not put your healing in that which He has forbidden to you” Hadith Bukhari
- “About Khamr (alcoholic intoxicant), it is not a remedy rather it is a disease” Hadith Muslim



Black Seed (*nigella sativa*)



❑ Black seed (*nigella sativa*) is originated in western Asia. The Prophet Muhammad once advised his followers: "Use the black seed, because it contains a cure for every type of ailment except death.



❑ Black seed helps with respiratory ailments, digestive issues, and to boost the immune system, contains antihistamine, anti-inflammatory, anti-oxidant, and analgesic properties.



Habbatu Sawda and Diabetes

- Increased Advanced Glycation End Products (AGEs) during chronic hyperglycemia is major cause of diabetic complications. AGEs augment ox-LDL and inflammatory cytokines leading to cardiovascular disease. Our ***in vitro* study** demonstrates that ethanolic extract of Habbatu Sawda (*Nigella sativa* L.) and its major active compound, thymoquinone, significantly inhibit phosphatidylethanolamine-linked AGE (AGE-PE). This inhibitory effect is greater than that of aminoguanidine, a common anti-glycation agent.
- Summary: Habbatu Sawda is probably a promising therapeutic option for the prevention of diabetic-induced cardiovascular disease.



Nutraceuticals

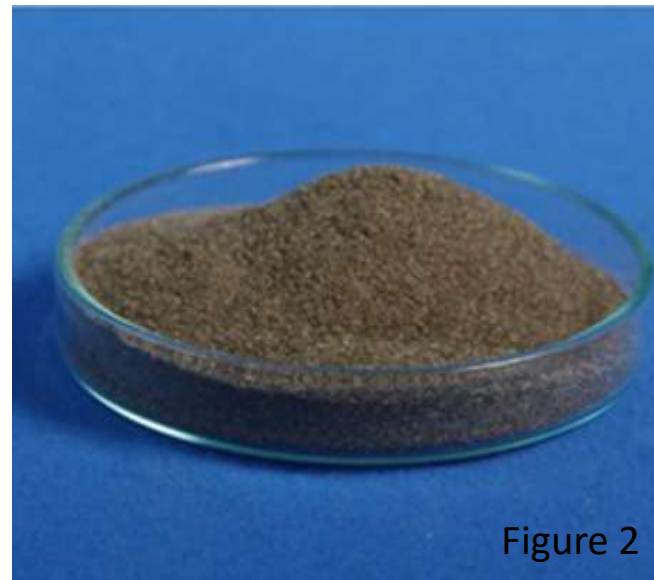
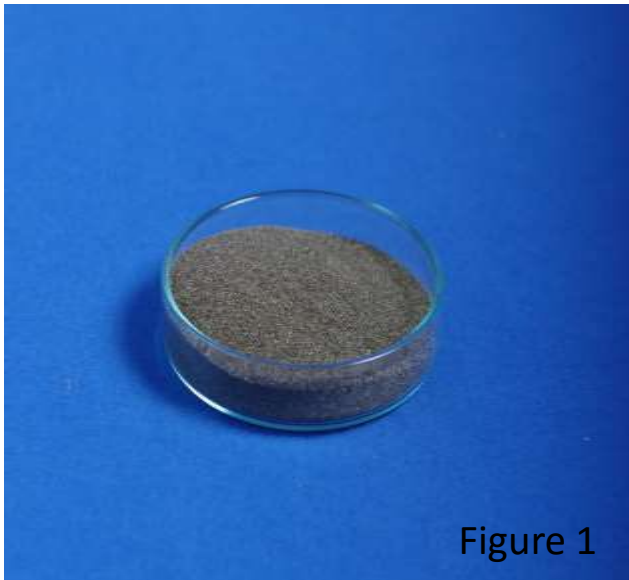


- ❑ **“Sunnah Snack”** functional food made of Habbatu Sawda mixing with wheat flour in order to enrich snack with herb for benefits of health.
- ❑ The microencapsulated Habbatu Sawda oils by spray drying technology for production of stable foods and snack with more palatable and acceptable to consumers and patients.

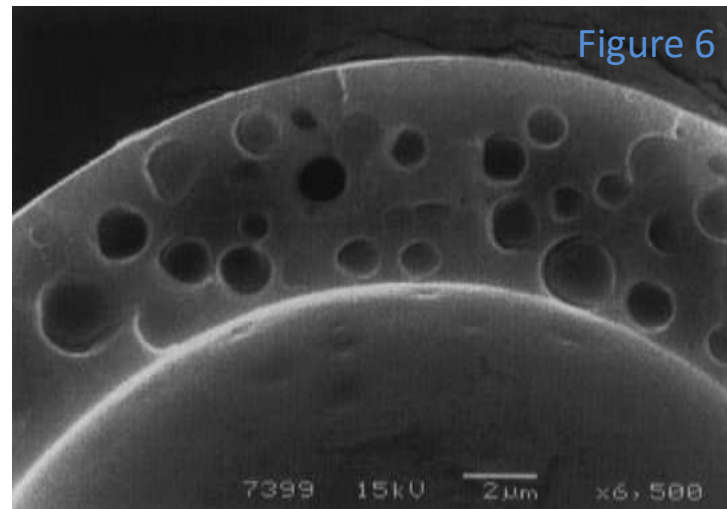
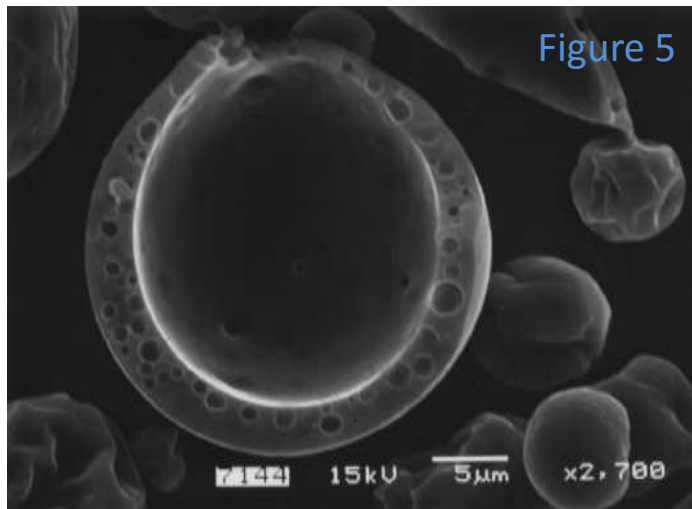
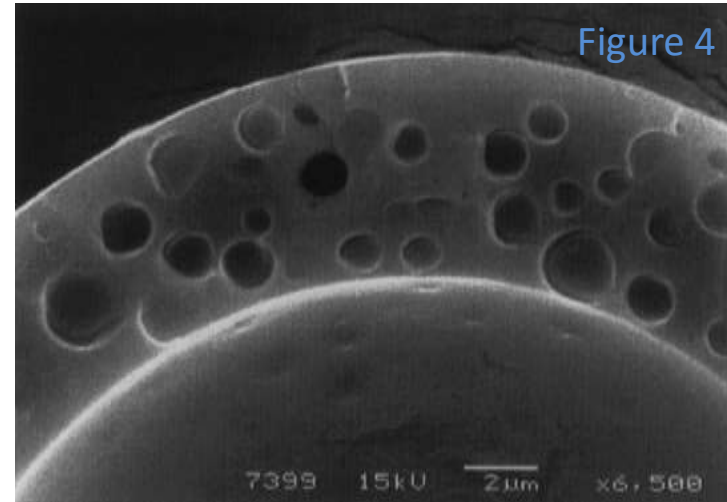
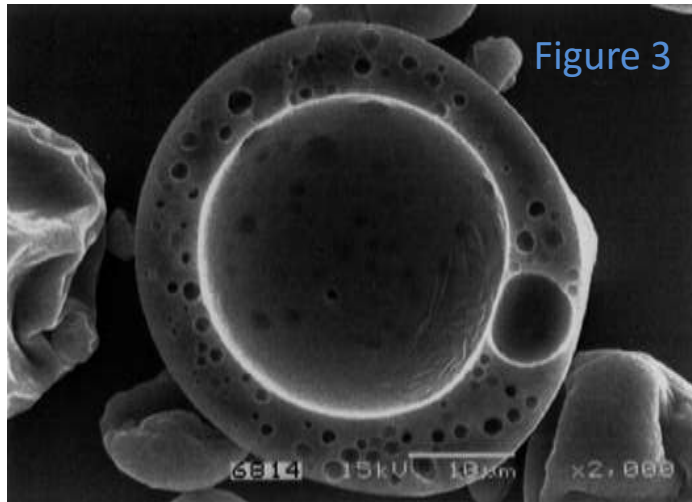


Nutraceuticals

Microencapsulated Habbatus Sawda oils by spray drying



Internal microstructure of microencapsulated products by spray drying



Cosmeceuticals

Anti-acne cream with 1.0 % (w/w) crude Habbatu Sawda seed extract shows ability in inhibiting *P. acnes* with MIC (minimal inhibition concentration) of 15.6 mg/mL.



ANTI-ACNE CREAM WITH HABBATU SAWDA SEED EXTRACT



ANADA
scent of clay



ANTI-ACNE CREAM
ผลิตภัณฑ์ดูแลผิวหน้าและรักษาสิว

ฮับบะตุซซาดาห์ หรือ เทียนดำ (*Nigella sativa* L.)
เป็นสมุนไพรชนิดหนึ่งตามแนวทางการแพทย์ของท่านนบีฮะมัด (ซล)
ที่สามารถยับยั้งเชื้อ *P. acnes* ซึ่งเป็นจุลินทรีย์สำคัญที่ก่อให้เกิดสิว

 www.halalscience.org
www.halkew.com
 facebook.com/halkew



Cosmeceuticals

Sun protection cosmetic product containing 0.5 % of Habbatu Sawda oil induces 30% increase of Sun Protecting Factor (SPF) value compared to normal formula.



SUN SCREEN WITH HABBATU SAWDA SEED EXTRACT



NATURAL SUNSCREEN plus Black Cumin Seed Oil

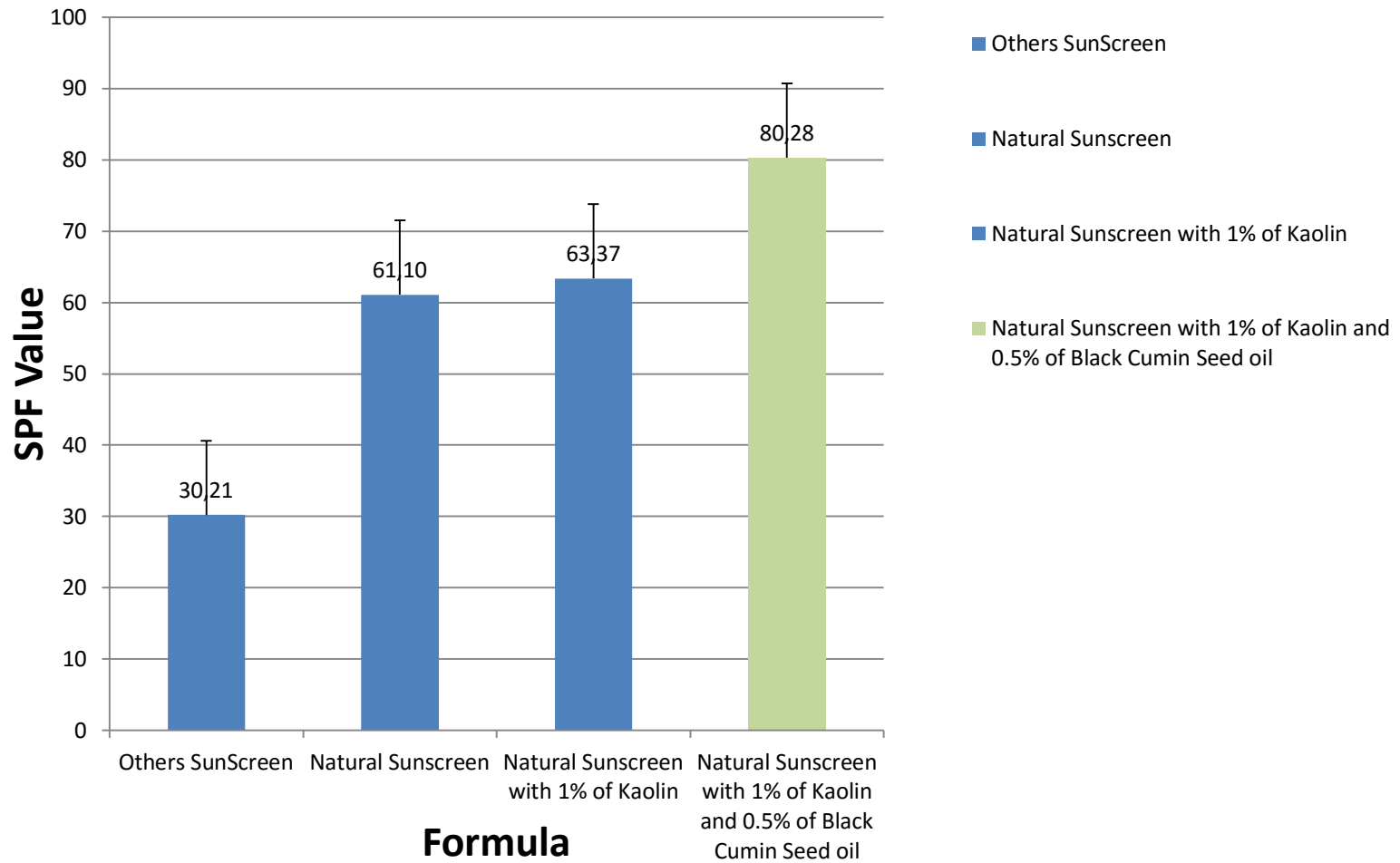
ผลิตภัณฑ์ปกป้องแสงแดดจากธรรมชาติผสมผสานนวัตกรรมใหม่สกัดค้นวิจัย มีส่วนผสมของ Kaolin และน้ำมันจากเมล็ดเทียนดำ (Black Cumin Seed Oil) ช่วยเพิ่มประสิทธิภาพการป้องกันผิวจากแสงแดดมากถึง 50 เท่า เมื่อผิวสวย สุขภาพดี แคล้วคลาดทั้งใจ

www.halalscience.org
www.halkeu.com

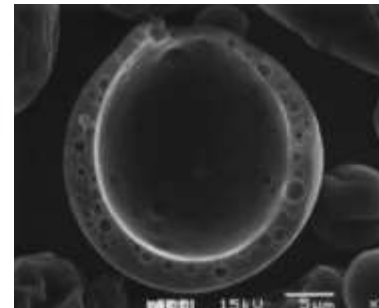
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Comparison of SPF Value



- Islamic traditional medicines had been used as a food for many centuries and the trend of its consumption still continuing until now due to its benefit.
- The advancement in science and technology not only help to proof the nutritional value facts from the Islamic traditional medicines but also improve the products to be more acceptable and attractable





Welcome To

THAILAND HALAL ASSEMBLY 2015



25-27 December 2015

Queen Sirikit National Convention Center
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