

More using palm oil vitamin E

A LIFE-SAVER: As more medical researchers all over the world discover the unique ability of palm oil vitamin E in seeking and killing cancer cells, Malaysia steps up funding for such studies in the hope of saving more lives. Ooi Tee Ching writes

DAVOS Life Science Pte Ltd head of research Dr Fong Chee Wai picks up a test tube of Vitamin E and recounted that many people think the Vitamin E is singular when this oil soluble nutrient is actually a family of eight siblings.

"The complete vitamin E family is made up of four tocopherols and four tocotrienols. Soft oils like olive, soya, canola and sunflower only contain tocopherols.

"Tropical oils like palm, rice bran and coconut, however, have both tocopherols and tocotrienols."

Over the last 30 years, scientific studies have shown that palm oil vitamin E, particularly the tocotrienols, is a far more potent antioxidant than tocopherols.

In an interview with *New Sunday Times*, he explained that the difference between tocotrienols and tocopherols is the "tail" on the vitamin E molecule.

"Tocopherols have long saturated tails while tocotrienols have unsaturated tails," said the scientist from Davos, which is fully-owned by Ipoh-based plantation company Kuala Lumpur Kepong Bhd.

The unique structure of tocotrienols enables them to do many things that tocopherols cannot do.

This includes easier access to all types of cells, more powerful anti-oxidative function in cells, the ability to penetrate internal organs, and the activation of a wide variety of gene signals.

"It is these unique biological activities in tocotrienols that help in body cell regeneration and make it able to protect healthy cells.

"More importantly, there is also increasing evidence of these potent antioxidants possessing warrior-like ability to zealously hunt down and kill cancerous cells."

It is this life-saving prospect from cancer that prompted the government via Malaysian Palm Oil Board (MPOB) to boost funding for palm oil vitamin E trials.

In a separate interview, MPOB

chairman Datuk Seri Shahrir Samad said, "We're encouraged that more medical researchers are looking into the potential of palm tocotrienols in the prevention and eventually, treatment of cancer."

He had just returned from a working visit to the Peter MacCallum Cancer Centre (PMCC) in Melbourne with Davos Life Science which is supplying palm tocotrienols for the cancer trials.

PMCC is Australia's only public hospital dedicated to cancer treatment, professional oncologist training, research and education.

It is one of the few cancer treatment facilities in the world that has a fully-integrated clinical and laboratory programme situated alongside a hospital.

Last year, Breast Cancer Network Australia estimated that 14,300 women and men in Australia were diagnosed with breast cancer, making it the most common killer disease.

Until now, the cure for cancer seems elusive because cancer cells are known to mutate and manoeuvre around drugs.

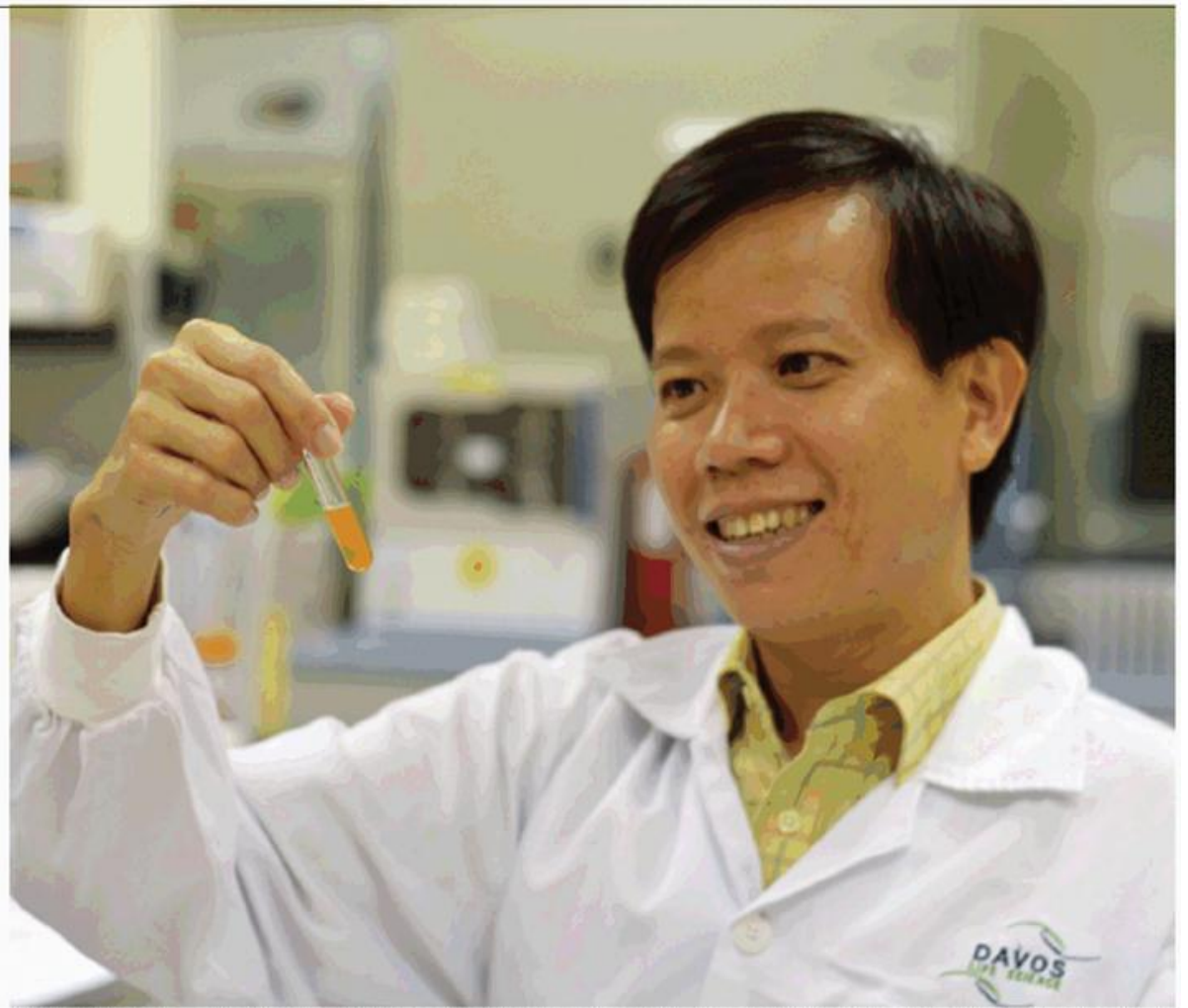
In a pioneering move, PMCC is embarking on fluorine labelling on palm tocotrienols to trace how this nutrient travels in the body.

"By marking the tocotrienols and using high resolution imaging, we hope to see how this team of super-soldiers fight and block the many pathways of cancer cells. It is through such collaboration with PMCC we can gain a deeper understanding of the health benefits of palm oil vitamin E."

Tocotrienols are usually extracted from palm oil because the oil palm tree is able to produce the highest concentrate compared to other oil crops.

Every year, Malaysia exports some RM50 million worth of palm oil health supplements, mainly to Europe, the United States, Canada and Japan.

A kilogramme of palm oil vitamin E sells for US\$500 (RM1,570).



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'These palm fats are all natural'

MALAYSIAN Palm Oil Board chairman Datuk Seri Shahrir Samad answers a few frequently asked questions.

1. What food products contain palm oil?

Food scientists like palm oil's natural semi-solid feature because they can fractionate and come up with many kinds of food ingredients like cooking oils, margarine, noodles, shortening, vegetable ghee, bakery fats, chocolates, hot beverages, coffee creamers, and ice-cream.

The best part is these palm fats are all natural. They need not be hydrogenated and therefore, do not contain the deadly trans-fat.

Due to its excellent stability, palm olein is the world's No.1 frying oil for instant noodles, French fries, potato crisps, doughnuts and snacks.

2. Does palm oil contain cholesterol?

No. Palm oil, like most other vegetable oils and fats, contain only traces of cholesterol (<50 µg/gram or <5 ppm).

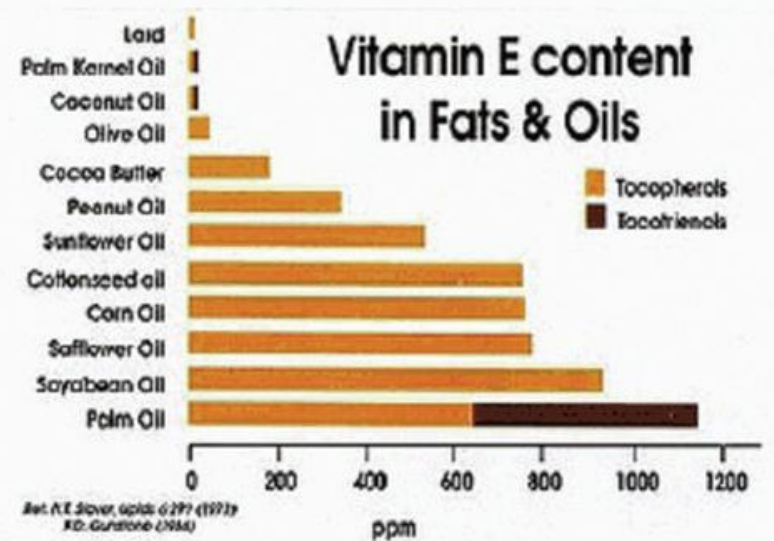
This amount is so low that it has no significant physiological effects on health. Therefore, it is considered "cholesterol-free".

3. Will palm oil consumption raise my blood cholesterol level?

No. Peer-reviewed studies conducted in the United States, Europe, Australia and Asia have firmly established that palm oil tends to be "neutral".

What this means is palm oil does not raise nor lower blood cholesterol levels.

It only has traces of the chole-



sterol-raising lauric plus myristic acids, as well as possesses a unique fat molecule configuration involving its major saturated fatty acid, palmitic acid, which renders the oil non-cholesterol raising.

Besides, palm oil has a high content of vitamin E variants called "tocotrienols" which have a statin-like cholesterol lowering action.

4. What are tocotrienols?

Tocotrienols make up half of the vitamin E family of eight siblings. The other four family members are tocopherols.

Over the last 30 years, scientific studies have shown that tocotrienols, is the more potent antioxidant than tocopherols. This is because tocotrienols, and not tocopherols, are able to:

lower blood cholesterol levels (statin-like action),

regress atherosclerotic plaques in stroke patients,

inhibit entry of white blood cells into arterial wall to become devouring phagocytes, thereby preventing early plaque formation,

inhibit blood clot formation in the bloodstream (anti-thrombotic effect),

protect skin from damage by ultraviolet rays of the sun (prevent premature ageing), and

kill cancer cells (apoptosis)

5. Where can you find tocotrienols?
Tocopherols are sourced from oilseeds such as soya oil, canola and sunflower, while tocotrienols are only available in high concentrates in palm oil.