

**WHITESSENCE™**



## Lightening concentrate

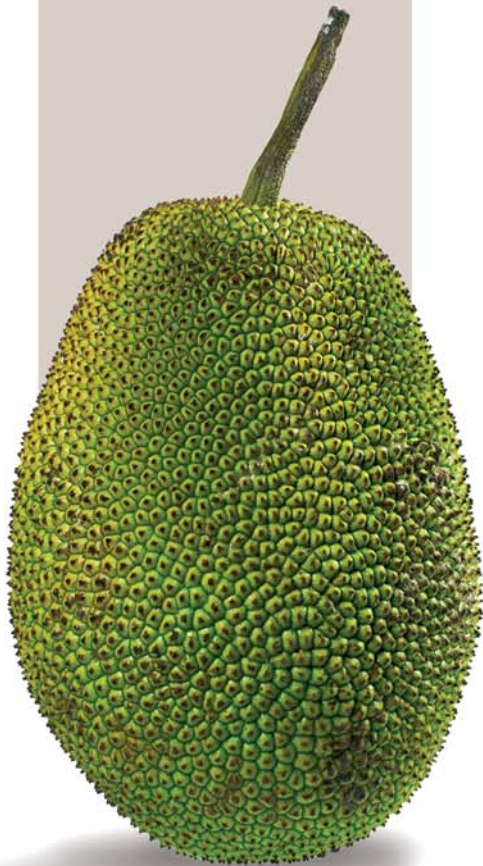
Decrease in melanin  
transfer to keratinocytes:  
inhibition of melanosome  
phagocytosis.

Lightening, unifying and  
anti-dark spot action:  
significant results on Asian  
skin after 2 months.

lucas meyer  
COSMETICS

# Nangka seeds

**WHITESSENCE™** is a strong natural lightening agent extracted from Asian nangka seeds. The specific proteins of WHITESSENCE™ inhibit the transfer of melanin from melanocytes to keratinocytes. The decrease in the melanin quantity at the surface of the skin results in a clear and unified complexion.



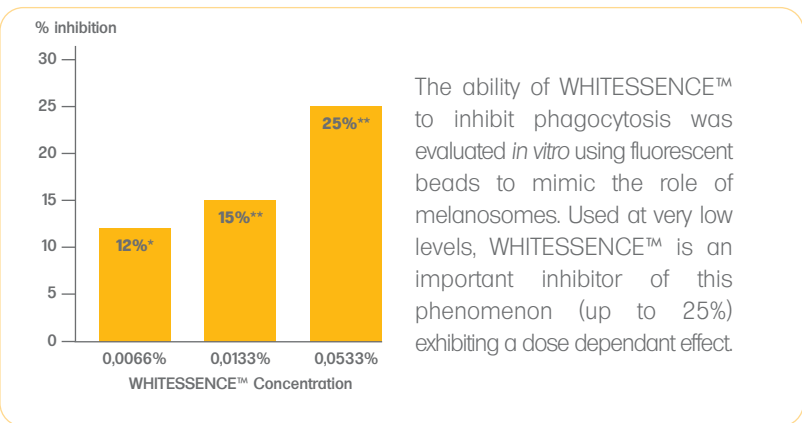
Nangka or jackfruit (*Artocarpus heterophyllus*) is a typical Asian tree belonging to *Moraceae* family. Available in markets across India, Thailand and Indonesia, its huge fruits are appreciated for their delicious pulp and can be eaten fresh or cooked. The large seeds contain a high level of unique proteins which have been concentrated in WHITESSENCE™.

## Targeting the melanin transfer to keratinocytes

Color in the skin is the result of the production and distribution of melanin in the epidermis. Melanin is synthesized by melanocytes which are dendritic cells located in the basal layer of the epidermis. Pigments are produced in specialized vesicles called melanosomes. The pigments are transported by the dendrites for transfer to the neighbouring keratinocytes by phagocytosis. Once inside the keratinocytes, the melanin is used to coat the cell nucleus giving color to the skin.

**Nangka proteins have a high capacity to inhibit melanosome phagocytosis. Concentrated in WHITESSENCE™, they provide a significant lightening effect.**

## In vitro evaluation



*Tested on normal negroid human epidermal melanocytes/keratinocytes cocultures. Results are expressed as % of variation versus untreated control after 24 hours of incubation*  
\* Statistically significant ( $p < 0.05$ ).  
\*\* Statistically significant ( $p < 0.01$ ).

**WHITESSENCE™ INHIBITS  
THE PHAGOCYTOSIS OF MELANOSOMES  
WITH A DOSE DEPENDANT EFFECT**

# Significant results on Asian skin after 2 months of treatment

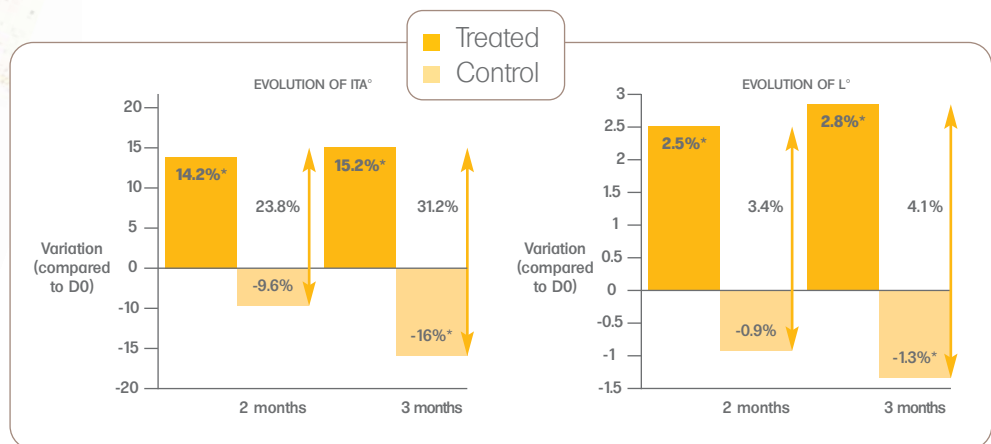
## Chromameter measurements

The lightening action of a cream containing 2% of WHITESSENCE™ was evaluated on 21 Asian females (35-60 years old), after a period of 2 and 3 months of an application two times a day on face. Each subject acted as her own control.

L\*, a\*, b\* parameters were measured by chromametry and Individual Typological Angle ITA° was calculated :  $ITA^\circ = \arctg [(L^*-50)/b^*] \times (180/\pi)$ .

The luminance L\* represents the skin's relative brightness from total darkness (L\*=0) to absolute white (L\*=100) and ITA° characterizes the skin color.

L\* and ITA° are considered for the assessment of the lightening effect: the lighter the skin, the higher the L\* and ITA° values.



\* Statistically significant ( $p < 0.01$ ).

After 2 months of treatment, the significant increase of the ITA° (+14.5%) and the L\* (+2.5%) values correlate with a significant decrease of skin color. After 3 months, the results are even better (respectively +15.2% and +2.8%).

WHITESSENCE™ activity is amplified by the fact that a tanning effect has been observed on the control area due to the seasonal conditions. If compared to control, results on treated zone can be estimated as follows:  $\Delta ITA^\circ$ : 23.8%,  $\Delta L$ : 3.4% after two months and  $\Delta ITA^\circ$ : 31.2%,  $\Delta L$ : 4.1% after 3 months.

## Auto-evaluation

After 3 months of a twice daily application of the cream containing 2% of WHITESSENCE™, volunteers agreed with the following statements:

- Skin is lighter: **81%**
- The intensity of the pigmented dark spots has decreased: **90.5%**
- The pigmentation irregularities have faded: **76.2%**

**THE SKIN IS VISIBLY LIGHTER AND MORE UNIFIED,  
THE APPEARANCE OF AGE SPOTS  
AND AREAS OF HYPER-PIGMENTATION ARE REDUCED.**

## SPECIFICATIONS

<b>INCI Name</b>	<b>Artocarpus heterophyllus seed extract (and) Maltodextrin (and) Disodium phosphate (and) Sodium phosphate</b>
<b>Appearance</b>	Beige powder
<b>Formulation</b>	Add below 40°C Formulate with electrolytes compatible ingredients

<b>Dosage</b>	1-3%
<b>Optimum pH</b>	6-8
<b>Application</b>	Lightening, unifying and anti-dark spots products

## LIGHTENING DAY CREAM

INGREDIENT	INCI NAME	%
<b>A</b> Deionised water Eusolex UV pearl	Water Water (and) Ethylhexyl methoxycinnamate (and) Silica (and) PVP (and) Chlorphenesin (and) BHT	up to 100 15.00
Satiaxane CX 91 Glycerin <b>BIOPHILIC™ H*</b>	Xanthan gum Glycerin <b>Hydrogenated lecithin (and) C12-16 alcohols (and) Palmitic acid</b>	0.40 4.00 <b>4.00</b>
<b>B</b> Parsol 1789 Parsol SLX <b>DERMOFEEL™ BGC*</b> Shea butter Lanette 16 DC 345 Phenonip	Butyl methoxydibenzoylmethane Polysilicone-15 <b>Butylene glycol dicaprylate/dicaprate</b> Butyrospermum parkii (shea butter) Cetyl alcohol Cyclopentasiloxane Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Butylparaben (and) Propylparaben (and) Isobutylparaben	4.00 4.00 <b>4.00</b> 0.50 0.60 1.50 0.70
<b>C</b> Deionised water <b>WHITESSENCE™*</b>	Water <b>Artocarpus heterophyllus seed extract (and) Maltodextrin (and) Disodium phosphate (and) Sodium phosphate</b>	5.00 <b>2.00</b>
<b>D</b> <b>LIFTESSENCE™ NATURE*</b>	<b>Water (and) Glycerin (and) Cyathea cumingii leaf extract</b>	<b>2.00</b>
<b>E</b> <b>OCEAN 4011/3*</b>	<b>Fragrance</b>	<b>0.40</b>

pH: 6.0 - 6.5 – Viscosity: 15000 - 25000 mPa.s

## LIGHTENING SERUM

INGREDIENT	INCI NAME	%
<b>A</b> Deionised water Glycerin Satiaxane CX 91 <b>DERMOSOFT™ GMCY*</b> <b>EMULMETIK™ 320*</b>	Water Glycerin Xanthan gum <b>Glyceryl caprylate</b> <b>Hydrogenated lecithin</b>	up to 100 4.00 0.40 <b>0.50</b> <b>2.00</b>
<b>B</b> Shea butter Sweet almond oil <b>DERMOFEEL™ TOCO 70 NON GMO*</b> <b>DERMOFEEL™ GSC*</b>	Butyrospermum parkii (shea butter) Prunus amygdalus (sweet almond) oil <b>Tocopherol</b> <b>Glyceryl stearate citrate</b>	3.00 2.00 <b>0.20</b> <b>1.00</b>
<b>C</b> Deionised water <b>WHITESSENCE™*</b>	Water <b>Artocarpus heterophyllus seed extract (and) Maltodextrin Disodium phosphate (and) Sodium phosphate</b>	5.00 <b>2.00</b>
<b>D</b> <b>ISOCELL™ CITRUS*</b>	<b>Water (and) Alcohol (and) Lecithin (and) Glycerin (and) Citrus medica limonum (lemon) fruit extract</b>	<b>1.00</b>
<b>E</b> Deionised water Potassium sorbate	Water Potassium sorbate	2.00 0.30
<b>F</b> <b>SENSUELLE 3950*</b>	<b>Fragrance</b>	<b>0.40</b>

pH: 6.0 - 6.5 – Viscosity: 50000 - 60000 mPa.s

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April 2007