

# NUTRAMEE – A LIPOPHILIC ANTIOXIDANT NOODLE

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**N**oodles are staple food in many Asian countries and account for more than 12% of global wheat production each year (Euromonitor, 2013). The world market size for noodle products had reached a total value of USD 2300 million in year 2013. Market players are aware of health concerns and some have initiated moves to provide healthier options (Euromonitor, 2013). Many functional ingredients have been added into noodle formulations to provide better nutrition profile. Red palm olein, a unique product from crude palm oil, which is the richest natural source of carotenes (500-1500 ppm) and a rich source of tocopherols (700-1000 ppm) (Choo *et al.*, 1993; Mayamol *et al.*, 2007) is formulated into a stable delivery system and incorporated into the noodle.

## NOVELTY

The red palm olein noodle produced has comparable flavour and texture to the dried Asian noodles (Figure 1). With a well-designed red palm olein delivery system, the phytonutrients are retained well throughout the noodle processing and cooking process. Red palm olein is packaged in the microcapsules in the glassy state. Through this patented technology, the oxidative stability of the product can be improved and the leaking of oil during cooking process can be overcome.



Figure 1. Red palm olein noodle.

## CHARACTERISTICS OF RED PALM OLEIN NOODLE

- Appealing natural yellow colour.
- Providing better oxidative stability.
- Providing good source of carotenoids and tocopherols.
- Easy to prepare.

## ECONOMIC EVALUATION

Suggested price per packet (100 g):	RM 4
Payback period:	2 years
Benefit to cost ratio:	1:1.32
Internal rate of return:	52%
Net present value:	RM 409 518
Return on investment:	200.10%

## FACILITIES

The easy but efficient method of producing the noodles can be easily upscaled at any industrial level. The noodle making equipment can be set up from pilot to industrial scale.

## TARGET MARKET

Local market and Asian countries such as Singapore, Taiwan, China, Korea, Indonesia and Japan.

## USES OF NUTRAMEE

- Can be served hot or cold.
- Can be served with or without soup.
- Able to improve overall appearance of any dish.
- Can be used in specified nutritional fortification programmes.



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