

SPECIALTY ANIMAL FAT REPLACER (SAFaR) FROM MALAYSIAN PALM OIL

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Specialty Animal Fat Replacer (SAFaR) is a new version of fat made from Malaysian Palm Oil. This fat is specially made to imitate the functional properties of animal fats like raw beef fat and chicken fat. SAFaR is scientifically designed and formulated to replace either raw beef fat or chicken fat in the manufacturing of emulsion meat specialty products and formed meat specialty products.

SAFaR was formulated with 100% Malaysian refined bleached and deodorized palm products. As such price competitiveness depends very much on the prevailing price of palm oil.

However, traditional animal fats used in the products were mostly foreign in nature and have to be imported from non-Muslim countries. The prices of raw beef and chicken fats ranges from RM1.75 to 2.00 per kg delivered at factory.

Among meat specialty products which have been formulated with SAFaR, were frankfurters, sausages, chicken nuggets, chicken burger, beef burger, beef patties burger, chicken and beef salami and meat and chicken balls. The other

product which can be produced is pepperoni which is most popular as pizza topping.

The advantages of using SAFaR compared to the traditional raw beef and chicken fat are:

- Cholesterol free and is vegetable based fat
- Free from pathogenic and spoilage microbes; it is made from fully refined, bleached and deodorized palm oil products.

Improved product shelf life.

Bland in taste as such imparts no taste to the final products; the product made will represent the true taste of the respective meats

Halal product derived from Malaysian grown palms oil and produced locally.

Available through out the

season and can be delivered on just in time (JIT) basis .

SAFaR is expertly manufactured using the latest available scientific know-how and technology in the processing of oil and fat. The low cholesterol SAFaR's meat specialty products such as chicken sausages, meat balls, nuggets and burgers are produced successfully by replacing animal fats with SAFaR.



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Data on positive attributes of SAFaR on the total plate counts (TPC) and cholesterol content were tabulated in Table 1 and 2, respectively. Sensory evaluation data mostly in favour of products made from SAFaR. SAFaR chicken burgers were juicier and tastier than the control made from chicken skin and fat.

Economic analysis showed that return on investment can be recovered by year two of operation. The internal rate of return calculated was 96% , and benefit cost ratio at 10% interest rate was 1.2.

TABLE 1. TOTAL PLATE COUNT OF CHICKEN PATTIE BURGERS DURING STORAGE.

Month	Plate count (upk/g)		
	Control	T1	T2
0	9.5 ^a	5.6 ^b	4.3 ^c
1	12.3 ^a	6.3 ^b	5.6 ^c
2	9.4 ^a	6.5 ^b	6.3 ^b
3	14.3 ^a	7.1 ^b	4.7 ^c

Means in the same row with different superscripts are different ($P < 0.05$)

Products 1 and 2 which were formulated with SAFaR showed lower TPC compared to Control using chicken fat and chicken skin.

TABLE 2. CHOLESTEROL CONTENT OF THE CHICKEN PATTIES BURGERS

Treatments	Cholesterol (mg/100g)
Control	64.60 ^b
T1	38.42 ^a
T2	37.90 ^a

Means in the same column with different superscripts are different ($P < .05$)

Products formulated using SAFaR, is significantly lower in cholesterol content compared to Control which was using chicken fat and skin.

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