Techno-Economic Suitability of Palm Oil for Food Products in the UK Market

YUSOF BASIRON, Palm Oil Research Institute of Malaysia, Tingkat 18, Angkasa Raya, Jalan Ampang, Kuala Lumpur, Malaysia

INTRODUCTION

The technical suitability of palm oil for use in food manufacturing does not call for elaborate reviewing. Palm oil has been used for many decades in Europe, and the UK is one of its oldest established users. Traditional applications are in margarines, shortenings, frying and confectionery fats. Nonfood uses include tin-plating, soaps and oleochemicals.

The consumption of fats in the UK has remained largely stable over the last 20 years. The overall per capita intake of visible fats has not varied much since 1960, although there have been significant changes within the groups of oils and fats with some decrease in use of butter and increase in margarine.

The market share of palm oil has declined in recent years, dropping from top to third position relative to soybean and rapeseed oils. A drastic drop was greatly noticeable in 1981 when monthly average prices of palm oil were above soybean oil prices for a period extending more than 16 months. Refiners interviewed have blamed high prices as the major reason for the declining market share for palm oil but other causes include the increasing availability of rapeseed oil from local supplies, resulting from the subsidy through the EEC Common Agricultural Policy. To some extent, palm oil imports have been affected by the high EEC tariff on processed palm oil. There has also been a shift in the pattern of oil consumption, favoring soft margarines, thus leading to greater demand for more liquid oils.

Techno-Economic Strength

Not all sectors of application were experiencing declining market shares. As shown in Table I, the tonnages of palm oil used in retail cooking fats, confectionery fats and dehydrated soups have shown increasing trends, despite the price premiums, while uses in cream products and industrial frying fats have remained largely stable. In margarines and catering frying fats sectors, where substitution rates among oils and fats are high, the use of palm oil has declined but would be expected to increase as its relative price decreases.

The study indicates that palm oil continues to be used despite the premium, in applications where its particular quality and properties matter most. These are oxidative stability, long frying-life, long shelf-life of fried foods, and suitable solid fats content profile (little hydrogenation). The suitability of palm oil in hard or pastry margarines probably accounts for the 11,600 tons of palm oil used in the margarine sector in 1981 despite the declining trend.

Palm oil offers fractions which increase the range of physical properties, and processed palm oil products are also available at competitive prices from Malaysia. Imports of processed palm oil have increased despite the high tariffs and high prices, thus demonstrating the cost effectiveness of Malaysian processed palm oil (Table II). Significant quantities of palm acid oils are being imported for blending into feedmeals.

TABLE I

UK: Estimated Usage of Refined Palm Oil in Food Products, 1976-1981 (1000 tons)

	1976	1981
Margarine	38	11.6
Compound cooking fats	21	31.0
Other	127	86.4
of which:		
retail cooking oil/fats	–	11
catering frying media	63	17
industrial frying media	48	36
confectionery fats	7	11
dehydrated soups	2	6
ice-cream	6	4.4
nondairy products	1	1
Total	186	129.0

Sources: Ministry of Agriculture, Fisheries and Forestry (MAFF) published data; International Marketing and Economic Services (IMES) field research.

TABLE II

Export of Palm Oil to the UK from Malaysia (tons)

	1979	1980	1981
From Malaysia			
Processed palm oil	8143	15435	45490
Palm acids	27782	43501	59986
Crude palm oil	126409	73157	53923
Total	162334	132093	159910

Sources: Department of Statistics, Kuala Lumpur.

The viability of palm oil to withstand competition in the UK markets has been demonstrated from several angles. Yet palm oil has no strong image, as its applications are mainly in blended products which are marketed under well advertised brands. UK refiners are concerned over the nonavailability of crude palm oil, because most palm oil is refined at source in Malaysia, but signs are that imports of processed palm oil will provide a viable operation to both suppliers and manufacturers. The UK manufacturers are at a disadvantage, however, as some other countries which impose no import tariffs can compete better in importing processed palm oil from Malaysia.

New applications of palm oil such as solid vegetable oils are receiving favorable acceptance by consumers. Solid vegetable oil replaces lard and is also favored for its cleanliness during frying operations.