

Market Acceptance for Palm Based Vegetable Ghee in Pakistan

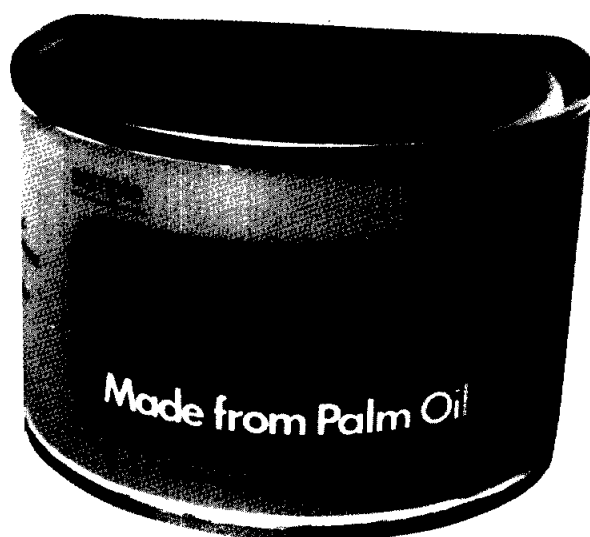
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BACKGROUND

Like other West Asian countries, Pakistan has traditionally been a solid fats consuming country. Up to the mid-sixties, indigenous animal butter fat (ghee) was the common cooking medium used in the country. Some quantities of vegetable ghee manufactured from indigenously produced and hydrogenated cottonseed oil were also consumed. Later on, as the country's consumption of edible fats started to grow, the growing demands were met by increasing the production of vegetable ghee. In the late sixties, Pakistan for the first time imported hydrogenated soya bean oil to be used for the manufacture of vegetable ghee. As the country's hydrogenation facilities grew, the hydrogenated soya bean oil was replaced by crude degummed soya bean oil.

Palm oil was first introduced to Pakistan in 1970. Initially, crude palm oil was imported. At that time, due to lack of an infrastructure for handling and inadequate refining facilities for crude palm oil, Pakistan's edible oil industry found it convenient to keep palm oil levels up to 5%–15% in the vegetable ghee blend. Since the country's dependence on imported vegetable ghee started to grow and coupled with it the industry's experience in the handling and processing of crude palm oil, the imports of palm oil by Pakistan started to grow accordingly.

In 1980, RBD palm oil was introduced into Pakistan, when PORIM in collaboration with FELDA and GCP conducted plant trials to produce vegetable ghee with larger amounts of palm oil in the formulation. RBD palm oil was readily accepted by Pakistan's edible oil industry and the palm oil share in vegetable ghee blend went up to 40% in 1980, 60% in 1985 and above 80% in 1993 (*Table 1*). This rapid growth in the use of palm oil in Pakistan was primarily due to the simplification in the refining process for RBD palm oil, reduction in the process losses and the processing costs as well as due to other manufac-



Vanaspati

turing and logistic advantages such as the enhancement of the production capacities.

Since 1990, due to the suspension of US PL-480 assistance to Pakistan on soya bean oil as well as to the privatization of the public sector GCP, the use of palm oil in the manufacturing of vegetable ghee has achieved a complete breakthrough. Presently, the vegetable ghee produced in Pakistan is based on 80% palm oil plus 20% partially hydrogenated cottonseed

TABLE 1. PALM OIL SHARE IN VEGETABLE GHEE PRODUCTION IN PAKISTAN

Period	Palm Oil Share (%)
1970 – 1975	5 – 20
1975 – 1980	20 – 40
1980 – 1985	40 – 60
1985 – 1990	50 – 65
1990 – 1991	65 – 80
1991 – 1994	80 – 100

TABLE 2. GROWTH OF PALM OIL MARKET IN PAKISTAN

Year	Palm Oil Imports (x100) tonnes	Type of Products
1965	5	CPO
1970	2	CPO
1974	27	CPO
1975	130	CPO
1980	233	NPO
1985	507	RBD PO
1988	526	RBD PO
1990	683	RBD PO
1991	976	RBD PO
1992	856	RBD PO/POL
1993	1 180	RBD PO/POL

Source: PORLA Statistic
Oil World

oil or 80% RBD palm oil plus 20% partially hydrogenated palm olein *i.e.* 100% palm products.

MARKET ACCEPTANCE OF PALM OIL

The growth in palm oil imports by Pakistan is an indication of the growing market acceptance of palm oil in the country. *Table 2* depicts the growth of the palm oil market. All the quantities of palm oil imported into the country have been channelled in to vegetable ghee production. In fact, vegetable ghee is predominantly palm based. The high percentage

(80%–100%) of palm oil in the vegetable ghee formulation is the manifestation of the degree of market acceptance of palm based vegetable ghee. There are many techno-economic factors which have contributed to the large scale acceptance of palm oil. Some of these are:

Technical Factors

Consumption Pattern

In Pakistan, the consumption pattern of dietary oils is heavily in favour of solid fats *i.e.* between 90%–95%. The major solid fat consumed in the country is vegetable ghee.

Technical Suitability

Physical characteristics of RBD palm oil such as slip melting point, the melting profile and the oil's semi-solid consistency at ambient room temperature have close resemblance to the Pakistani vegetable ghee standards. Palm oil only needs minimal modification or processing to be converted into vegetable ghee. Due to no or very little hydrogenation required for conversion of palm oil into vegetable ghee, it can be conveniently used to produce *low-trans* or *trans-free* products. These properties of palm oil contribute in enhancing its suitability and acceptance for the manufacture of semi-solid products such as vegetable ghee.



Typical Examples of Palm Based Ghee for West Asia Market

Cost of Processing

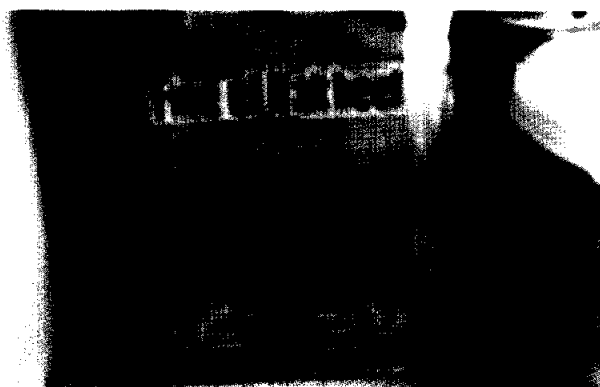
The low and favourable costs of processing of palm oil and palm olein into vegetable ghee justify the incorporation of higher amounts of palm products in the vegetable ghee blends. The other production logistics such as the fully refined nature of palm oil and the non-requirement of post refining process, also contribute not only to cost savings but also to the enhancement of production capacities of the edible oil industry of Pakistan by at least 40%.

Hydrogenation

During the winter months, the use of palm oil in the formulation of vegetable ghee does not need any hydrogenation. However, for summer formulations it becomes necessary to mildly hydrogenate palm oil in order to provide a better consistency to the end product. Moreover, in addition to palm oil, some liquid oils such as cottonseed, soya bean and palm olein are also used up to about 20%. These liquid oils are partially hydrogenated for incorporation into the vegetable ghee blend. Although, palm oil products do not need hydrogenation for conversion into vegetable ghee, it is done in order to meet the legal requirement in Pakistan by which some element of hydrogenation is required in vegetable ghee. Therefore, the liquid oils such as palm olein, cottonseed oil and soya bean oil are adequately hydrogenated and blended with RBD palm oil.

Quality

The quality of RBD palm oil received in Pakistan has been generally good and in accordance with the consumer buying specifications. The quality of the vegetable ghee produced with higher amounts of palm oil has been comparable to the official standards of Pakistan Standard Institution (PSI) and that of the Ghee Corporation of Pakistan (GCP). The quality parameter alone has played an important role in the general acceptance of RBD palm oil for use in the vegetable ghee formulation which has in turn contributed to the market development of palm oil in Pakistan.



Palm Oil Based Ghee

Economic Factors

Price competitiveness of RBD palm oil/RBD palm olein in Pakistan has been instrumental in the wider acceptance and use of palm oil in vegetable ghee manufacture. The price competitiveness of palm oil in the international market coupled with the other logistic advantages such as short shipping period from Malaysia to Pakistan, has played a deciding role in building up the price and cost advantages for palm oil in Pakistan.

To ensure higher profits, the private sector will take all the steps essential for reducing the cost of production of vegetable ghee. In this respect, palm oil fits very well into this requirement due to the favourable price and cost parameters.

CONCLUSION

The use of palm oil in vegetable ghee formulation is well established in Pakistan. The latest nutritional concerns on the risks of *trans*-isomers in hydrogenated products will encourage the greater incorporation of palm products in vegetable ghee. Demand for palm based low *trans* vegetable ghee will further enhance the market acceptability of palm oil among consumers in Pakistan.

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