



PROBLEMS AND PROSPECTS OF COCONUT OIL IN MEETING THE EDIBLE OIL SEEDS REQUIREMENT IN INDIA

K.U.K.Nampoothiri and C.V. Sairam

Central Plantation Crops Research Institute, Kasaragod - 671 124
Kerala

Introduction

Coconut is an important source of vegetable oils in India, used for both edible purposes and industrial applications. India leads the world in the annual production of coconuts but stands third, next only to Indonesia and the Philippines in the global production of coconut oil. This is due to the fact that nearly 61 per cent of coconuts in India are consumed raw, while the remaining 38 per cent only are converted to copra to obtain coconut oil (Singh and Markose, 1999). At present the annual production of coconut oil in India is around 4.1 lakh tonnes, which is about 6.5 per cent of the total production of vegetable oils.¹ In the present era of WTO, the future prospects of coconut oil industry in India faces stupendous challenges and this article highlights the problems and prospects of coconut oil in meeting the edible oil requirements in the 21st Century.

Trend in Production of Coconut and Copra

Coconut meat (kernel), the endosperm of the fruit contains 20 per cent carbohydrate, 36 per cent protein, with moisture content of about 50 per cent (Nampoothiri and Madhavan, 1999). A number of products are derived from coconut of which copra (dried kernel) is the most important one. Milled copra yields coconut oil, which is extensively used for edible and cosmetic purposes. In India copra making units are located all over Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Lakshadweep and Andaman and Nicobar Islands, of which Kerala state alone accounts for more than 85 per cent of the units.

The annual production of coconut and copra in India had exhibited an increasing trend since 1989 (Table 1). During the period 1989 to 1997, the coconut production in the country had increased by about 45% and that of copra by about 67%. However the percentage share of copra in the total production of coconut in India, exhibited a fluctuating trend up to 1992 dropping down to 29.9%, but later on the same had increased to about 39% during 1997. During the same period the percentage share of coconut used for other purposes had marginally declined from 66% during 1989 to about 61% during 1997.

Trend in Production of Coconut Oil

Coconut oil is the major edible product of coconut and the price of coconut continues to be dependent on the price of coconut oil (Thampan, 1999). In India there are about 1400 oil mills producing 4.1 lakh tonnes of coconut oil annually of which 40 per cent is used for edible purposes and the remaining for industrial applications like soap making, paint production, etc. During the

period 1989 to 1997, the total production of coconut oil in the country had increased from 2.9 lakh tonnes to 4.1 lakh tonnes (by 41%). During the same period the share of total vegetable oil production in India had increased from 50.65 lakh tonnes to 62.50 lakh tonnes (by about 23%). However between 1989 and 1997, the share of coconut oil in the total vegetable oil production in the country had increased only by 0.75% (Table 2).

Consumption pattern of coconut, copra and coconut oil

Coconut and coconut products find a ready market in India. In fact except for coir and coir products, whatever is produced out of coconut is only just sufficient for domestic consumption. However the pattern of consumption of coconut and its products in Kerala is different from the rest of the country (Table 3). Out of the total annual production of coconut, about 41% are used as raw nuts in Kerala and the same is 79% in other states. The raw nuts are used for seed nuts, for culinary purposes, as tender nuts and for the manufacture of desiccated coconut. In India on an average 62% of the coconut production is used as raw nuts, of which about 49% as is used as matured nuts, 11% as tender coconut and 2.4% for the manufacture of desiccated coconut.

About 38% of the total annual production of coconut is converted as copra, of which 30.9% forms the milling copra and the remaining 7.5% constitutes the edible copra. More than 55% of the total annual production of coconut in Kerala is converted as copra for the manufacture of coconut oil, whereas in other states about 22% of the coconuts are converted into copra.

In the case of coconut oil, out of the total annual production of 3.55 lakh tonnes during 1993-94, 39% is used for edible oil purposes and 46% for toiletry purposes and 14% for other industrial use. The use of coconut oil for edible purposes mainly prevail only in Kerala, parts of Tamil Nadu and Karnataka.

Advantages of using coconut oil

Food items prepared out of coconut oil have unique taste as well as longer shelf life. The specific aroma of this oil and its resistance to rancidity find extensive uses in food industry especially in infant milk powder, ice cream, confectionery, and bakery products. Of the several resources available for the preparation of Vitamin E, coconut oil is the predominant one. In addition, it is also used for curing number of diseases like peptic ulcers, stomach ache, etc. For cough and cold and for diseases of ear and secretions from mucous membranes, medicated coconut oil is always prescribed. Among the edible oils, coconut oil is preferred to other vegetable oils because of its specific biochemical properties. The oil has recently come under criticisms for its supposed hypercholesterolaemic effect, raised mainly by the anti-saturated fat agenda in USA. Although it is true that 90-92% of fatty acids in coconut oil is of saturated type, about 64% of them are medium chain fatty acids like lauric acid (Table 4). As compared to longer chain fatty acids, the medium chain fatty which have lower melting point, less calories and are not deposited to any extent in the adipose tissues or other tissues. Although coconut oil has low content of essential fatty acids, it is blessed with anti-microbial and anticarcinogenic effects. Research studies conducted in the Philippines confirm that lauric acid purified from coconut oil is used to boost the immune response of HIV patients.

Constraints and Threats

One of the major constraints for coconut oil to emerge as a major edible vegetable oil in the country are the diverse nature of consumption pattern and the relative price disadvantage of coconut oil as compared to other major vegetable oils in the country. A comparative analysis of wholesale prices of coconut oil and other major vegetable oils for the period 1970-71 to 1994-95, indicated that the price of coconut oil were higher than other vegetable oils including the groundnut oil for most of the periods. This was mainly due to the fact unlike other vegetable oils, coconut oil is used for both edible and non-edible purposes and hence has more price inelasticity of demand (Sairam, et. al, 1999).

Under the present situations, the domestic demand of coconut oil is stable, but after 2005 AD when the international trade liberalization comes into effect as per World Trade Agreement (WTA), there could be some serious threats for coconut oil especially in the non-edible sector. One of the major weaknesses of Indian coconut oil industry is the higher cost of production and hence the domestic prices of coconut oil are very high as compared to the international market (Table 5). The difference between the Indian and international prices of coconut oil was the highest during 1990 (304%) and later on the gap had narrowed down to only 59% during 1995, but again it had reached 120% during 1997. Hence India is in a disadvantageous position with regard to the international trade of coconut oil. If this trend continues in future, unless necessary precautions are taken to curb the import of coconut products and their substitutes, the domestic prices of coconut oil would crash affecting the millions of coconut farmers in the country.

Future Prospects

India is the largest producer of coconut in the world, but to meet the internal demand, import is also resorted to in the form of copra or coconut oil and at the same time the country also exports a small quantity of coconut oil (Table 6). During the period 1993-94 to 1997-98, the quantity of imports of coconut oil does not exhibit any specific trend: however during the same period there was a steady increase in the amount of export of coconut oil to foreign countries. In order to compete in international market, Indian coconut products are to be made cost effective and at the same time it is necessary to maintain the quality parameters. It is interesting to observe that while the demand for coconut oil in the international market is for industrial purposes, the Indian oil finds its major applications in the edible and toiletry sectors. The special aroma, flavour and quality of Indian oil will always fetch a premium price. However to meet the challenges arising out of WTA, it is necessary to reshape all the sectors of coconut industry to achieve higher technical and economic efficiency through higher productivity. In addition, it is also necessary to streamline the import policy of other edible oils since the past experiences indicate that imports

and availability of other cheaper oils in the open market had adversely affected the price of coconut oil.

Conclusions

Coconut oil would continue to play its role as one of the major edible oils in the country, especially in Kerala in view of its special qualities described. The problems faced by the Indian coconut oil sector are different from that of other vegetable oils, since coconut oil is used both for edible and non-edible purposes. In order to face the future challenges, the domestic prices of coconut oil needs to be stabilized within a reasonable range which is profitable to the growers, affordable to the consumers and remunerative to the industry. The coconut-based economy can be stabilized only when its dependency on a single product viz., coconut oil is minimized. This could be achieved by encouraging alternative uses of coconut such as tender nut, snow ball tender nut and through the manufacture of other coconut products such as desiccated coconut, coconut, coconut shell, coconut cream, coconut milk etc. In the current era of WTA, since the domestic prices of coconut oil is very high as compared to the international prices, import of copra and coconut oil would seriously affect their domestic prices thereby causing serious damage to the economic livelihood of millions of small and marginal farmers. Production of high quality oil is one among the ways to circumvent this. The foreign trade policies of coconut and its products and their close substitutes are to be formulated taking into account the domestic demand and supply of coconut oil.

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