

## BUTTER SUBSTITUTES

- Margarine is a generic term used to indicate any of a wide range of butter substitutes. In many parts of the world, margarine is now the best selling table spread, although butter and olive oil also command large market shares. It is used as an ingredient in the preparation of many other foods.
- Modern margarine can be made from any of a wide variety of animal or vegetable fats, and is often mixed with skim milk, salt, and emulsifiers.
- Fortifying margarine with vitamins A, D, and E does not alter its flavor, making it an excellent carrier for these micronutrients.
- Bakery Margarine is an emulsion of water in oil, with a fat content of about 80% as per conventional standards and used for icing and baking. The process involves blending of oils and fats and other components in a suitable manner so as to resembling a smooth appearance of butter and spread ability. This product need not be refrigerated.

### **Product Applications**

- For use as a butter-substitute in all applications.
- Suitable for use as a cooking medium. Can be heated to high temperatures.
- Ideal as a spread on bread/toasts/sandwiches
- For shallow frying or sautéing (frying quickly in a little fat).
- For use as topping on variety of items, viz; pav-bhaji, parathas, khichri, pulao, soups etc.

Many popular table spreads today are blends of margarine and butter — something that was long illegal in countries including the United States and Australia — and are designed to combine the lower cost and easy-spreading of artificial butter with the taste of the real thing

**Peanut butter** (also known as peanut paste) is a food paste made primarily from ground roasted peanuts, with or without added oil. It is popular primarily in the United States, Australia, the United Kingdom, and Canada.

### **Proposal:**

Considering the changes in eating habits and tastes, rapid development of market for products like Margarine and peanut butter can be expected. A Small scale unit catering to a large city like Hyderabad can be a profitable venture

### **Product mix:**

Margarine (zero cholesterol)	2 tons per day
Margarine (with dairy butter)	2 tons per day
Peanut butter	500 Kgs per day

## **Market**

*Dairy India 2007* has estimated the size of India's dairy sector in 2005 at Rs 227,340 crore (valued at consumer prices). The largest contributor to this is liquid milk (at Rs 82,835 crore), followed by ghee (Rs 22,980 crore), *khoa/chhana/paneer* (Rs 24,100 crore), milk powder (Rs 4,680 crore), table butter (Rs 770 crore), cheese/edible casein (Rs 975 crore) and other products such ethnic sweets, ice-cream, etc (Rs 9,100 crore).

Margarine and pea nut butter have to cut into the market of Ghee and table butter. Considering The growth of consumers it should not be a problem to create new markets.

## **Manufacturing Process**

Vegetable oil/ oils are used in the manufacture of margarine and spreads. Oil modification is used to help make this oil harder. Three ways to modify oils are hydrogenation, rearrangement or fractionation.

The first process is the blending stage, where various oils are mixed or blended together to make the right texture for the final spread product.

### **Step 2**

Further ingredients such as vitamins, colours, flavours and emulsifiers are mixed with the blend. At the same time a mixture of water, whey, brine and powdered ingredients is created.

### **Step 3**

These two ingredient mixtures are blended together at temperatures around 50 - 60 ° C while being slightly mixed. This mixture or emulsion needs to be pasteurized at temperatures around 70 to 86 ° C.

### **Step 4**

The mixed spread is now chilled to make it go solid.

### **Step 5**

During the chilling process, the product is 'worked' in a cylindrical chamber with a series of pins, which kneads the spread at a fixed speed.

### **Step 6**

After the chilling process, the product is now ready to be packed and transported to supermarkets, where it needs to be stored at between 2 ° C and 5 ° C.(in case of bakery margarine refrigeration is not necessary)

## **Peanut Butter**

Harvest, peanuts are sent to factories for inspection. The inspected peanuts are roasted in ovens. After roasting, they are rapidly cooled by air to stop cooking. This helps to retain its color and oil contents.

The cooked peanuts are then rubbed between rubber belts to remove the outer skin. The kernels are split with the hearts removed and then cleaned and sorted. Next, the peanuts are sent to the grinder.

The peanuts are ground twice: pulverized to small bits first, and then ground with salt, sweetener and usually a stabilizer to keep the oil from separating. So-called "old-fashioned" or "natural" peanut butter typically does not contain a stabilizer. The oils will separate after a time; these varieties are frequently stored in the refrigerator, which prevents the oil from separating back out but also makes it harder to spread. Skippy recently introduced a "natural" peanut butter which does not require any stirring. It does, however, contain palm oil as a stabilizer.

### **Technology:**

The technology is simple and can be obtained from CFTRI

### **Plant and Machinery:**

Blenders, kneaders, mixers and Packing machinery.

### **Raw materials:**

Vegetable oils (refined), Dairy products, Modifying agents, salt, sugar

### **Utilities:**

Power is the main utility.

### **Project cost:**

Rs. 150 lacs

### **Turnover and profitability:**

Rs. 600 lacs. Profit margin of 10% is feasible.

### **Suggested location:**

Hyderabad

### **Entrepreneur profile:**

This is a marketing intensive project. The working capital requirements are also high. Entrepreneurs in vegetable oil processing can take up this project with an objective of building a profitable brand.

### **Apitco's consultancy:**

1. Market survey.
2. Technology tie-up