



Dairy products and their Importance

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ABSTRACT

Dairy products include a variety of foods such as cheese, butter, yogurt, and many more. They are consumed throughout the world, excluding some parts of central Africa and some countries in East and Southeast Asia.

KEYWORDS: Dairy products, cheese, butter

INTRODUCTION

Dairy products are the food products produced from the milk, most commonly from cattle, buffaloes, goat, sheep and camel. These products include milk, butter milk, fermented milk, cream, butter, cheese, yogurt, custard, casein, ice cream. Mostly milk from cows and buffaloes are preferred. There are many breeds of cows like Holstein, Ayrshire, Brown Swiss, Guernsey and Jersey [3].

Composition of the milk depends upon the factors like breed, cow's genetic composition, age, stage of lactation, milking intervals and diseases. The major components of the milk are water, fat, protein, lactose, minerals, vitamins, essential amino-acids, trace minerals. The fat consists of triglycerides, cholesterol and Vitamin A, the protein part is the casein. It is an excellent source of riboflavin (B2) and provides lesser amounts of thiamine (B1) and niacin. Other B vitamins found in trace amounts are pantothenic acid, folic acid, biotin, pyridoxine (B6), and vitamin B12 [2].

Modern Dairy plants use high speed centrifuge to separate cream based on the principle that they are lighter than the fats. These also act as clarifiers where some somatic cells and bacteria are separated. Then Homogenization of milk is done to prevent floating of fat globules, this is done by breaking up clumps by forcing the milk through homogenizer valve. For the better storage and transportation, milk is dried into powder. The drying is done through drum dryer and spray dryer.

Lactose is a disaccharide which consists of two simple sugars namely glucose and galactose, it is sweeter Kyrgyzstan, North America and Pakistan. Medium-consumption countries consume 30 to 150 kg per capita per year. These countries are: India, Iran,

than sugar and helps in synthesis of B complex vitamins and enhances calcium and phosphorous absorption. Milk is rich in minerals like Calcium, phosphorous, potassium, sodium. Calcium is essential for building and maintenance of bones, teeth, transmission of nerve impulses, blood clotting and regulation of heart contraction [1].

DISCUSSION

Milk contains many natural enzymes, and other enzymes are produced in milk as a result of bacterial growth. Enzymes are biological catalysts capable of producing chemical changes in organic substances. Enzyme action in milk systems is extremely important for its effect on the flavour and body of different milk products. Lipases (fat-splitting enzymes), oxidases, proteases (protein-splitting enzymes), and amylases (starch-splitting enzymes) are among the more important enzymes that occur naturally in milk. These classes of enzymes are also produced in milk by microbiological action. In addition, the proteolytic enzyme (i.e., protease) rennin, produced in calves' stomachs to coagulate milk protein and aid in nutrient absorption, is used to coagulate milk for manufacturing cheese [4].

Rates of dairy consumption vary widely worldwide. High-consumption countries consume more than 150 kg per capita per year. These countries are: Argentina, Armenia, Australia, Costa Rica, most European countries, Israel,

Japan, Kenya, Mexico, Mongolia, New Zealand, North and Southern Africa, most of the Middle East, and most of Latin America and the Caribbean. Low-

consumption countries consume under 30 kg per capita per year. These countries are: Senegal, most of Central Africa, and most of East and Southeast Asia.

CONCLUSION

Dairy foods include items such as milk, cheese and yoghurt. These foods play an important role in our diet as they contain vital nutrients such as calcium, for strong bones and teeth, protein, for the growth and repair of muscle tissue, vitamins, such as B12 and other nutrients such as iodine, riboflavin and potassium.

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