Back-To-Basics

Introducing the Dairy Products

Actions:	This is how we do it:
1. **DAIRY - The Products** 	Dairy, also called milk products and sometimes categorized with milk alternatives, is typically a smaller category in nutrition guides. Dairy products are usually high-energy-yielding food products. A production plant for such processing is called a dairy or a dairy factory. Raw milk for processing comes mainly from cows, and, to a lesser extent, from other mammals such as Goats, Sheep, Yaks or Camels. Dairy products are commonly found in European, Middle Eastern and Indian cuisine, whereas they are almost unknown in East Asian cuisine. Dairy relates to milk and milk production, for example Dairy products.
2. **Milk**  	Milk is a white liquid produced by the mammary glands of mammals. It is the primary source of nutrition for young mammals before they are able to digest other types of food. Early-lactation milk contains colostrums, which carries the mother's antibodies to the baby and can reduce the risk of many diseases in the baby. The precise components of raw milk vary by species and by a number of other factors, but it contains significant amounts of saturated fat, protein and calcium as well as vitamin C. The term *milk* is also used for white colored, non-animal beverages resembling milk in color and texture such as soy milk, rice milk, almond milk, and coconut milk.
3. **Processed Milk** 	In many cultures of the world, especially the Western world, humans continue to consume milk beyond infancy, using the milk of other animals (especially cattle, goats and sheep) as a food product. Cow's milk has been processed into dairy products such as cream, butter, yogurt, kefir, ice cream, and especially the more durable and easily transportable product, cheese. Modern industrial processes produce casein, whey protein, lactose, condensed milk, powdered milk, and many other food-additive and industrial products.

4. **Milk Products**

Milk after optional homogenization*, pasteurization*, in several grades after standardization of the fat level, and possible addition of bacteria *Streptococcus lactis* and *Leuconostoc citrovorum*

A list of the most common food products made from Milk:

- **Crème fraîche**, slightly fermented cream
- **Clotted cream**, thick cream made by heating
- **Smetana**, Central and Eastern European variety of sour cream
- **Cultured buttermilk**, fermented concentrated (water removed) milk using the same bacteria as sour cream
- **Kefir**, fermented milk resembling buttermilk but based on different yeast and bacteria culture
- **Kumis**, slightly fermented mares' milk popular in Central Asia
- **Milk powder** (or powdered milk), produced by removing the water from milk
- **Whole milk products**
- **Buttermilk products**
- **Skim milk**
- **Whey products**
- **Ice Cream**
- **High milk-fat & nutritional products** (for infant formulas)
- **Cultured and confectionery products**
- **Condensed milk**, milk which has been concentrated by evaporation, often with sugar added for longer life in an opened can
- **Khava**, milk which has been completely concentrated by evaporation, used in Indian sweets (Gulab Jamun)
- **Evaporated milk**, (less concentrated than condensed) milk without added sugar
- **Ricotta cheese**, milk heated and reduced in volume, known in Indian cuisine as Khoa
- **Infant formula**, dried milk powder with specific additives for feeding human infants
- **Baked milk**, a variety of boiled milk that has been particularly popular in Russia
- **Yogurt,** milk fermented with additional bacteria

**Milk homogenization is accomplished by mixing massive amounts of harvested milk to create a constant, then forcing the milk at high pressure through small holes. It is an essential tool of the milk food industry to prevent creating various levels of flavor and fat concentration.*

**Pasteurization is heating up the milk in order to extend the shelf life*

5. **Butter**

Butter is a dairy product made by churning fresh or fermented cream or milk. It is generally used as a spread and a condiment, as well as in cooking applications, such as baking, sauce making, and pan frying. Butter consists of butterfat, water and milk proteins.

Most frequently made from cows' milk, butter can also be manufactured from the milk of other mammals, including sheep, goats, buffalo, and yaks. Salt, flavorings and preservatives are sometimes added to butter. Rendering butter produces clarified butter or *ghee*, which is almost entirely butterfat.

Butter is a water-in-oil emulsion resulting from an inversion of the cream, an oil-in-water emulsion; the milk proteins are the emulsifiers. Butter remains a solid when refrigerated, but softens to a spreadable consistency at room temperature, and melts to a thin liquid consistency at 32–35 °C.

It generally has a pale yellow color, but varies from deep yellow to nearly white. Its unmodified color is dependent on the animals' feed and is

commonly manipulated with food colorings in the commercial manufacturing process, most commonly annatto or carotene.

Examples for products using butter:

- Buttermilk, the liquid left over after producing butter from cream, often dried as livestock food
- Ghee, clarified butter, by gentle heating of butter and removal of the solid matter
- Smen, a fermented clarified butter used in Moroccan cooking.
- Anhydrous milkfat

6. **Cheese**

Cheese, produced by coagulating milk, separating from whey and letting it ripen, generally with bacteria and sometimes also with certain molds
Curds, the soft curdled part of milk (or skim milk) used to make cheese (or casein)

Examples for cheeses are:

- **Paneer**
- **Whey**
  The liquid drained from curds and used for further processing or as a livestock food
- **Cottage cheese**
- **Quark**
- **Cream cheese**
  Produced by the addition of cream to milk and then curdled to form a rich curd or cheese made from skim milk with cream added to the curd
- **Fromage frais**
- **Blue Cheeses**

Training Notes:

Introduce

- Yourself, the task, what TM will learn and how testing is conducted

Demonstrate When To Start and Materials

- Getting prepared immediately when the duty starts
- Materials: Dairy products

Demonstrate Actions

- Use job rehearsal to demonstrate steps
- Explain why each step is performed in a certain way.
- Explain what team members should notice when doing each step and any safety precautions

Demonstrate the Result and Task Standards

- Knowing specific food categories / Dairy products

Practice

- TM explains each step of task during practice. Check for errors and remind TM to correct them immediately, Task performed independently of trainer and to standard

Test for knowledge

Q. Fresh milk contains high amounts of what?
A. Fat, Vitamin C, Protein and Calcium

Q. Butter melts to a liquid at what temperature?
A. 32–35 °C.

Q. What is clarified Butter?
A. Ghee for example - heating of butter and removal of the solid matter

Follow-up

- Task performed to standard in actual job conditions; observed by manager of dept.
- Dept. Quiz completed to 100% accuracy