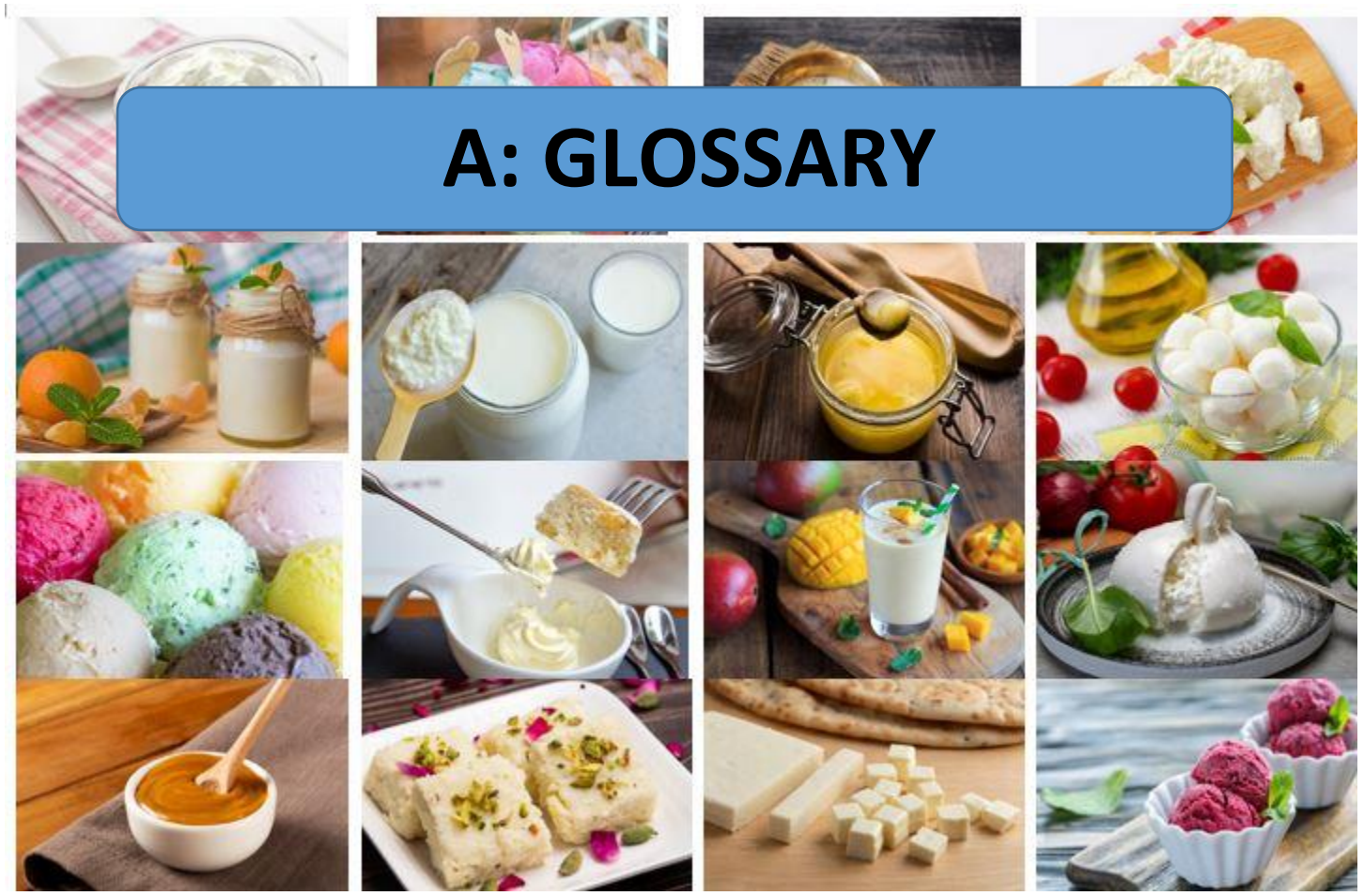
PRODUCTION OF DAIRY PRODUCTS
IN FOOD SERVICE ESTABLISHMENTS

A: GLOSSARY



BRITISH COLUMBIA | Ministry of Health

Prepared: Sept 2022

Glossary

Acidification	The development of acid in milk or cheese as lactic acid bacteria convert lactose to lactic acid. There is a corresponding drop in pH.
Bain Marie	A bain marie is a hot water bath. It is used for cooking delicate foods like custards and clotted cream to create a gentle and uniform heat around the food.
Break Set	During fermentation, the milk becomes a solid mass that looks like thick yogurt. A clean break is desired when cutting the coagulum into curds. To test, a curd knife is inserted into the centre of the curd to make a small cut. Gently life the curd to see if you get a clean break. The curd should split along a clean line. Some whey will expel from the cut. A clean break means the curd is ready for the next step.
Brine	A salt solution used for soaking cheese to flavour and develop texture. Whey and calcium chloride may be added to the brine solution. Some cheeses are stored in a brine solution.
Brix (ºBx)	Brix is the unit used to express the concentration of sugar in water, specifically for fruit fillings. By using a refractometer, Brix (ºBx) is determined. Since dissolved solids in water cause light to refract, the higher the refraction, the more dissolved solids are present.
Butterfat (BF)	One of the components of milk. The combination of fatty acids and triglycerides that constitutes the fat portion of milk. Also known as milk fat.
Calcium Chloride	A common salt consisting of one calcium ion and two chloride ions ($CaCl_2$). It may be purchased in solution form. Calcium ion is critical for curd formation in cultured dairy products.
Casein	A major protein in milk. Casein is important for development of curd structure. When milk is treated with acid or rennet, the casein protein preciptitates from the milk and forms the curd.
Cheese cloth	A loosely woven cotton cloth that is used for draining whey from curds.
Coagulation	Solidification of proteins forming curd.
Curd	The solid part of cheese (as compared to the liquid whey). Curd structure is formed during the coagulation of milk proteins and contains fat, moisture, salts and other milk components.
Cutting	Passing a knife or other narrow blade through the curd mass to divide it into smaller chunks. This step promotes the release of whey.
Double boiler	An arrangement of a large outer ot containing water and a smaller innner pot containing the material to be heated. This arrangement is useful in the production of dairy products because it results in a gentler and more gradual heating than direct heat.

Glossary

Incubate	The maintenance of uniform conditions of temperature during the manufacture of cultured dairy products to ensure the controlled development of acid.
Incubator	An insulated enclosure that has temperature control. They are thermostatically regulated to maintain a constant temperature. This controlled environment allows for the optimum growth of the bacterial cultures used in cultured dairy products.
Inoculate	The addition of bacterial culture to milk. The bacterial culture grows and develops acid contributed to the curd formation and flavour development of the cheese.
Kadai	A Kadhai pan is a deep-sided, flat-bottomed pan that is similar in shape to a wok, though with a wider bottom surface area and steeper sides. It is useful for processes that require evaporation such as Khoya
Lactose	It is the sugar of milk. It is a disaccharide consisting of a glucose and a galactose molecule. Lactose is converted by lactic acid bacteria to lactic acid.
Pasteurization	Heat treatment of milk to reduce the population of viable microorganism; intended to eliminate pathogens.
Pasteurized Milk	Milk that has been heat -treated to destroy pathogens. Heating method may be HTST (High Temperature Short Time) or Vat which is a heat treatment at a lower temperature for a longer period. All milk used in food service establishments dairy products must be commercially pasteurized.
Percent weight/weight (% w/w)	Weight concentration of a solution is expressed as %w/w. In whole milk, 3.25% BF means there is 3.25 kg of fat in 100 kg of milk.
pH	A measure of acid content in a substance, measure on a scale of 0 (acidic) to 14 (alkaline).
Pressing	Contributes to draining of whey and development of structure of curd. It is done by applying weight or pressure to a cheese to help expel whey and achieve a desired texture.
Rennet	Rennet is a coagulant that is used to form the curds in cheesemaking. It is naturally found in the stomachs of calves. Vegetarian options for rennet are also available. It can be purchased as tablets or in liquid form which is easier to use.
Shear	Ice cream is made by freezing and aerating ice cream mix. Ice Cream Mix contains fat, sugar, milk solids, an emulsifying agent, stabilisers, flavouring and colourings. These ingredients must be blended properly with sufficient mixing of the liquid and dry ingredients to achieve a stable mix that does not seperate. In large dairy operations they will have a homogenizer for this step. In food service establishe a high-shear mixers such as a hand held robo-coupe or blender will provide good results.

Glossary

Solids Not Fat (SNF)	The non butterfat components of milk. It includes protein, lactose (milk sugar) and minerals.
Standardized Dairy Product	Raw milk from the cow varies from 3.6 to 4.5 % BF. Dairy processorts separate the butterfat from the raw milk to make the commercial fluid milk products such as skim milk, 2% and 3.25% Homo milk. These are called standardized milk products.
Starter Culture	Also called Bacterial Culture. It is a preparation of living microorganisms for inoculating milk. They ferment lactose and produce lactic acid. Lactic acid curdles the milk. Important process in yogurt, cheese and buttermilk production.
UHT Pasteurization	Ultra High Temperature pasteurization is a processing step where milk is heated directly or indirectly with steam to a high temperature. UHT pasteurized products are packaged in sterile containers such as tetrapak and are shelf stable. UHT pasteurized milk products are not suitable for cheesemaking because the protein is denatured too much in this heating technique.
Whey	Whey is the watery part of milk that is separated from the curd during cheese making. The casein protein provides the structure of cheese. There is a very low level (0.6%) protein in whey. Whey is high in lactose (milk sugar), minerals and vitamins. The greenish colour of whey is due to the riboflavin content.