



GLOSSARY

Unit operations: Unit operations are the processes involved in converting a raw product to the final product that is consumed by the end users.

Cleaning: Cleaning is the unit operation in which contaminating materials are removed from the food and separated to leave the surface of the food in a suitable condition for further processing.

Emulsification: Emulsification is the formation of a stable emulsion by the intimate mixing of two or more immiscible liquids, so that one (the dispersed phase) is formed into very small droplets within the second (the continuous phase).

Homogenisation: Homogenisation is the reduction in size (to 0.5–30 μm), and hence the increase in number, of solid or liquid particles in the dispersed phase by the application of intense shearing forces.

Filtration: Filtration is the removal of insoluble solids from a suspension (or 'feed slurry') by passing it through a porous material (or 'filter medium').

Mixing: Mixing (or blending) is a unit operation in which a uniform mixture is obtained from two or more components, by dispersing one within the other(s).

Pasteurisation: Pasteurisation is a relatively mild heat treatment, in which food is heated to below 100°C.

Evaporation: Evaporation, or concentration by boiling, is the partial removal of water from liquid foods by boiling off water vapour.



Dehydration: Dehydration (or drying) is defined as 'the application of heat under controlled conditions to remove the majority of the water normally present in a food by evaporation'.

Baking: Baking is the unit operation in which heated air is used to alter the eating quality of foods. Baking is a term commonly applied to the production of cereal-based products such as bread, biscuits, cakes, pizzas, etc.

Chilling: Chilling is the unit operation in which the temperature of a food is reduced to between -1°C and 8°C .

Freezing: Freezing is the unit operation in which the temperature of a food is reduced below its freezing point and a proportion of the water undergoes a change in state to form ice crystals.

Extrusion: Extrusion is a process which combines several unit operations including mixing, cooking, kneading, shearing, shaping and forming.