



## 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  $\mu\text{m}$ ), 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  $-1^{\circ}\text{C}$  and  $8^{\circ}\text{C}$ .

**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.