



GLOSSARY

Milk: Whole fresh clean lacteal secretion obtained by the complete milking of one or more healthy milch animals, excluding that obtained within fifteen days before or five days after calving or such periods as may be necessary to render the milk practically colostrum free and containing the minimum prescribed percentages of milk fat and milk solids not fat.

True constituents of milk: True constituents of milk are fat, casein and lactose.

Lactose –Lactose is a major carbohydrate in milk.

Milk fat (lipid): This is an oil-in-water type emulsion. Exists in the form of small globules, with size 2 to 5 microns (range 0.1 to 22 microns).

Milk Proteins: The proteins of milk consist mainly of casein, α -lactalbumin, β -lactoglobulin, etc.

Whey or serum proteins: β -lactoglobulin and α -lactalbumin present in the colloidal state and are easily coagulable by heat.

Mineral matter or Ash: The mineral matter/ salt constituents include potassium, sodium, magnesium, calcium, phosphate, citrate, chloride, sulphate and bicarbonate.

Phospholipids: In milk there are three types of phospholipids viz. lecithin, cephalin and sphingomylin.

Cholesterol: This appears to be present in true solution in the fat. It is part of the fat globule membrane complex and in complex formation with protein in the non-fat portion of milk.

Colostrum: After parturition for first few days mammary glands secrete a fluid known as colostrum which has a strong odour, a bitter taste, a slight reddish yellow colour and contains a high percentage of immunoglobins. It is rich source of all milk constituents except lactose, potassium and pantothenic acid.

Lecithin: Lecithin forms an important constituent of the fat globule membrane. Contributes to the



richness of flavour of milk and other dairy products.

Carotene: It is a fat soluble and responsible for the yellow colour of milk, cream, butter, ghee and other fat rich dairy products.

Fat soluble vitamins: Fat soluble vitamins include Vitamin A, D, E and K.

Water soluble vitamins: Water soluble vitamins include vitamins of the B Complex group (thiamine or B₁, riboflavin or B₂, pantothenic acid, niacin, pyridoxine, or B₆, biotin, B₁₂, folic acid, etc.) and vitamin C (ascorbic acid).

Casein: Casein is the major milk protein and exists in the colloidal state in the form of calcium caseinate-phosphate complex, forms more than 80 percent of the total protein in milk.

