

INTRODUCTION TO DAIRY SCIENCE, MILK PROCESSING & CIP

Prerequisites: N/A

Duration: 3 Days

Course Aims

To develop a basic understanding of the chemistry and microbiology of liquid milk and an overview of dairy processing operations



Course Objectives

To enable course participant to:-

- ◆ Demonstrate knowledge of dairy chemistry and the relationship to processing operations
- ◆ Demonstrate knowledge of dairy microbiology and the affects of contamination and poor hygiene
- ◆ Show understanding of standard laboratory milk testing
- ◆ Show an appreciation for Critical Control Points associated with liquid milk processing



Who is the course for?

Processing and Manufacturing Operatives, Team Leaders, Laboratory Technicians and staff in other roles who require an understanding of basic dairy science



Course Content

Primary Production of Milk

Dairy Chemistry

Fats, Proteins, Lactose, Vitamins, Minerals and Enzyme

Dairy Microbiology

Classification: Bacteria, Yeast & Moulds
Factors affecting bacterial growth
Spoilage & Pathogenic contamination

Quality Testing

Butterfat, Freezing Point, Acidity, TVCs, Enteros, Bactoscan, Resazurin, SCC
CCPs: Antibiotics & Pasteurisation

Processing Operations

Separation, Homogenisation, Pasteurisation and Filtration

CIP & Hygiene

Effluent Treatment

Polluting effects of milk products and treatment techniques

Day 3 Practical Sessions

Pasteurisation & Separation
Intro to Dairy Engineering

Assessment

Multiple choice test