IMPFT134K

Principles of microbiology in food technology

Overview

This standard is about the underpinning knowledge surrounding food microbiology. It covers the background knowledge needed to understand the micro-organisms that are present within food products, both harmful as well as those that helpfully contribute to the successful processing of foods.

This standard is for you if your role requires you to have an understanding of how micro-organisms behave, are controlled and assessed in the production and supply of food and drink products.

Performance criteria

You must be able to: See IMPSP113S Ensure compliance with legal, regulatory, ethical and social requirements

Knowledge and understanding

You need to know and understand:

1 how types of micro-organisms which are important in food and drink processing are classified
2 the characteristics of the micro-organisms which cause viral food poisoning
3 how viral food poisoning micro-organisms can be controlled and destroyed during food processing
4 the characteristics of the micro-organisms which cause bacterial and fungal decay and deterioration of food
5 what the main methods are for the control of food spoilage by bacteria and fungi
6 the characteristics of the micro-organisms which cause bacterial food poisoning
7 how bacterial food poisoning micro-organisms can be controlled and destroyed during food processing
8 what microbial toxins are and what their impact is in food material
9 how microbial toxins can be eliminated during food processing
10 what the purpose and value of probiotic bacteria are in specific food formulations
11 the characteristics of the micro-organisms which play a critical part in the fermentation and further processing of bread, brewery products, cheeses, yoghurt and other fermented dairy products
12 the effect of bacteriophage on the starter cultures used in the production of cheese and other fermented dairy products
13 how microbial biopolymers can be used to improve the texture of food products
14 the biochemical processes which characterise lipolytic, proteolytic and fermentative microbial activity
15 the techniques used for the microbiological assessment of foods
16 how to interpret the outcomes of the microbiological assessment of food
17 potential errors and tolerances which are taken into account during microbiological assessment of foods

IMPFT134K

Principles of microbiology in food technology

Developed by	Improve
Version Number	2
Date Approved	November 2015
Indicative Review Date	September 2019
Validity	Current
Status	Original
Originating Organisation	Improve
Original URN	IMPFT134K
Relevant Occupations	Food Scientists
Suite	Food Technology
Keywords	IMPFT134K