IMPFT133K

Principles of yeast biology for food and drink

Overview

This standard is about the principles of yeast biology for the food and drink sector. It is about understanding how yeast is manufactured and how it feeds, grows and reproduces during food processing, to produce fermented products.

This standard is for you if you need a broad understanding of the structure and technical performance of yeast. You need to understand the type of yeast selected for fermented products and the food substrates it can feed on. You need to know how yeast can multiply, feed and how it produces a range of fermentation substances.

Performance criteria

You must be able to: See

IMPPM110S Carry out process control of production in food manufacture

IMPWM101S Ferment grape juice or concentrate

Knowledge and understanding

You need to know and understand:

1 why yeast are classified as a fungi
2 the overall size and nutritional composition of the single cell yeast organism
3 how many yeast cells might be present in one gram of yeast
4 what the microscopic structure of the yeast organism is
5 the functionality of the microscopic component parts of the yeast cell
6 what the yeast enzymes are which are important in fermentation
7 the action of the yeast enzymes on food substrates
8 what the factors are which affect the performance of yeast enzymes and the rate of fermentation
9 the features of the substances produced by fermentation
10 how yeast cells use a budding process to reproduce by asexual reproduction
11 what the optimal rates of yeast reproduction are
12 the sporulation of yeast and its importance in cross-breeding yeast strains
13 what species of yeast are cultivated for use in brewing and baking
14 how yeast is manufactured on a large scale for use in food and drink processing
15 the features and uses of compressed and granular yeasts
16 the features and uses of active dried yeast, ordinary dried yeast and instant dried yeast
17 what the ideal conditions are for the care and storage of the yeast types

IMPFT133K

Principles of yeast biology for food and drink

Developed by	Improve
Version Number	2
Date Approved	November 2015
Indicative Review Date	September 2019
Validity	Current
Status	Original
Originating Organisation	Improve
Original URN	IMPFT133K
Relevant Occupations	Manufacturing technologies; Process Operatives; Plant and Machine Operatives
Suite	Food Technology
Keywords	Food; Yeast; Biology; Drink; Fungi; Fermentation