



GLOSSARY

Alcohol any organic culture in which the hydroxyl functional group (-OH) is bound to a saturated carbon atom.

Batch culture a microbial culture grown in a closed vessel with no addition of nutrients or removal of waste products

Bioreactor a fermentation vessel for the controlled growth of microorganisms

Defined medium a medium whose precise chemical composition is known

Freeze-drying (lyophilization) Water is removed by sublimation, in the presence of a cryoprotective agent; sealing in an ampule can lead to long-term viability, with 30 years having been reported

In vitro = 'in glass', i.e. outside of the living organism, in test tubes etc.

In vivo = 'in life', i.e. within the living organism

Inoculum the cells used to 'seed' a new culture

Metabolism the total of all chemical reactions in the cell; almost all are enzyme catalyzed

Oxidation A chemical reaction in which one of the reactants (beer, food) undergoes the addition of or reaction with oxygen or an oxidizing agent

pH Abbreviation for potential Hydrogen, used to express the degree of acidity and alkalinity in an aqueous solution, usually on a logarithmic scale ranging from 14-1, with 7 being neutral, 1 being the most acidic, and 14 being the most alkaline

Primary Fermentation The first stage of fermentation carried out in open or closed containers and lasting from two to twenty days during which time the bulk of the fermentable sugars are converted to ethyl alcohol and carbon dioxide gas. Synonym: Principal fermentation; initial fermentation

Sediment The refuse of solid matter that settles and accumulates at the bottom of fermenters, conditioning vessels and bottles of bottle-conditioned beer



Silage Fermented plant material with increased palatability and nutritional value for animals, which can be stored for extended periods

Sparging in lautering, an operation consisting of spraying the spent mash grains with hot water to retrieve the liquid malt sugar and extract remaining in the grain husks

Steeping the soaking in liquid of a solid so as to extract flavors

Sterilisation the process by which all microorganisms present on or in an object are destroyed or removed

Turbidity sediment in suspension; hazy, murky

Turbidostat A continuous culture system equipped with a photocell that adjusts the flow of medium through the culture vessel to maintain a constant cell density or turbidity

Wastewater treatment the use of physical and biological processes to remove particulate and dissolved material from sewage and to control pathogens