Fermentation commercial usage

Name

Affiliation

Alcohol fermentation takes place in microorganism for instance yeast that converts sugar to energy with the release of carbon dioxide. It can be aerobic or anaerobic with ethanol as a by-product. Commercially it has a use in cheese, yogurt, and in pickled foods.Yogurt is the result of fermented milk that is created through the joint act of the bacteria Streptococcus lactis and Lactobacillus bulgaricus. These bacteria ingest the sugar in the milk and produce lactic acid and acetaldehyde that give yogurt the specific taste. The same process is used to produce cheese. The texture of the cheese is due to the release of the carbon dioxide. Moreover, pickle manufacturers also ferment their cucumbers using this chemical reaction. Bacteria in these cucumbers break down their sugar and produce lactic acid. On the other hand, lactic acid fermentation takes place in specific bacteria, yeast as well as in muscle cells. It also converts sugar to energy and its by-product is lactate. This fermentation has been extensively used in the food industry such as wine, beer, fermented drinks, bread as well as sausages (Chavez, 2018). For bread making, yeast and sugar are added to the dough. Yeast consumes sugar and generates carbon dioxide that gives the bread bulk and texture. In addition, lactic acid fermentation is also used to produce alcoholic beverages commercially. During the process, yeast produces ethyl alcohol and carbon dioxide after consuming sugar (Chavez, 2018). For sugar, different sources are used such as grains, grapes as well as berries.

References

Chavez, F. B. (2018). 5 Uses of Fermentation. Retrieved from https://sciencing.com/5-uses-fermentation-10015326.html